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Distribution of Fishing Effort and Catches of Skipjack Tuna, Katsuwonus pelamis, in Hawaiian Waters, by Quarters of the Year, 1948-65

By Richard N. Uchida

SPECIAL SCIENTIFIC REPORT–FISHERIES No. 615

UNITED STATES DEPARTMENT OF THE INTERIOR
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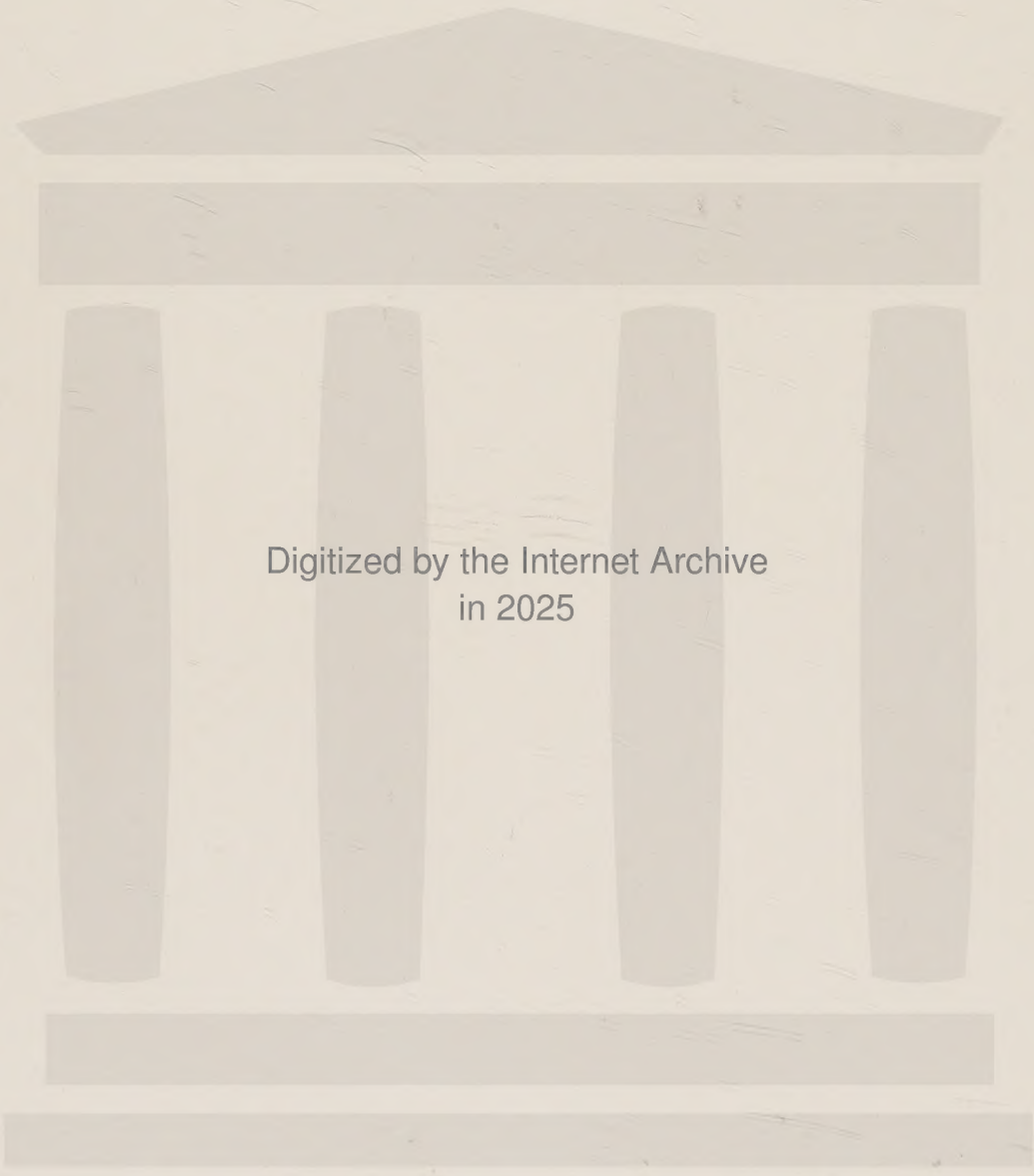
BUREAU OF COMMERCIAL FISHERIES



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Distribution of Fishing Effort and Catches of Skipjack Tuna, Katsuwonus pelamis, in Hawaiian Waters, by Quarters of the Year, 1948-65

By

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ABSTRACT

The temporal and spatial distribution of fishing effort and skipjack tuna catches are described on the basis of detailed data on catch, location, and effort obtained each year from all vessels that fish full time for skipjack tuna in Hawaiian waters. Summarized are the amount of "effective" fishing (defined as a trip on which skipjack tuna were caught), the resulting catch, and catch per standard effective trip in each statistical area and combinations of statistical areas (regions).

The fishing is highly seasonal. Usually the effort expended and the catch in the first quarter were 15 and 9 percent, respectively, of their annual totals. Fishing intensified in May and second quarter catches, produced by 32 percent of the annual effort, accounted for 33 percent of the annual catch. A further increase in effort to 36 percent of the annual total in the third quarter increased catches sharply so that they constituted 46 percent of the annual take. As the abundance of skipjack tuna declined in the fall, fishing also declined; fourth quarter effort, which was reduced to 17 percent of the annual total, produced only 12 percent of the annual catch.

INTRODUCTION

Hawaii's live-bait fishing vessels traverse 181,000 km.^{2} of water surrounding the islands in their search for schools of skipjack tuna, Katsuwonus pelamis. Total annual catch has ranged from a low of 2,780 metric tons in 1957 to a high of 7,329 metric tons in 1965. Variations in the total catch are evident not only among years but also among areas fished. A recent study, for example, indicated that the catch of skipjack tuna within 37 km. of the islands represented from 63 to 90 percent of the total catch (Uchida, 1967).

This report summarizes the amount of fishing effort expended and the resulting skipjack tuna catches in each of several areas and in certain combinations of them, by quarters of the year, for 1948-65. No attempt is made to relate variations in the catch rate and total catch to environmental and biological conditions. The basic data, however, will be useful to such studies, which are now underway.

SOURCE OF MATERIAL

All catches of skipjack tuna (aku) from Hawaiian waters are recorded by the fishermen on Aku Catch Reports, which are distributed and collected by the Hawaii Division of Fish and Game. I used catch reports of only those vessels that fished exclusively for skipjack tuna.

The reliability of the locations of catches reported in the Aku Catch Reports has been questioned by Yamashita (1958), who described in detail the method the fishermen use to report their catches. It is essential to realize that

skipjack tuna fishing is highly competitive in Hawaii; therefore, fishermen are reluctant to disclose the locations of their catches. Yamashita compared the catch localities given in the catch reports with those obtained through interviews with the fishermen and found that the two records agreed for only about 45 percent of the trips examined. I, however, do not believe that the catch localities recorded in the catch reports are so erroneous; rather, information obtained through interviews should be questioned.

The conditions under which the interview data were collected and turned in did not ensure that the data would remain fully confidential; it is, therefore, likely that some fishermen gave erroneous information. Personal contacts and discussions with fishermen have led me to believe that catch reports are reasonably reliable, because the captain or a crewmember records the actual catch and locality on the report form after each trip. At the end of each month, the original of the catch report is sent to the Division of Fish and Game; a copy is retained aboard the vessel as a permanent record of its operations.

ANALYTICAL PROCEDURES

The procedures used to analyze the catch statistics, which were described in detail by Uchida (1967), are briefly discussed in the following sections, which deal with statistical area system, size classes of vessels, and standardization of catch per effort.

Statistical Area System

The fishing ground in Hawaiian waters is divided into three general areas (fig. 1). The first extends from the coastline to just outside the reefs, a distance of about 4 km., the second extends from 4 to 37 km., and the third is beyond 37 km. from the coastline. These areas are further subdivided into smaller statistical areas, each with a three-digit code number. The first digit represents counties within the State; 1 and 2 refer to Hawaii County, 3 refers to Maui County (also includes the islands of Molokai, Lanai, and Kahoolawe), 4 refers to the City and County of Honolulu, and 5 refers to Kauai County (also includes the island of Niihau). If the last two digits of the code number are between 00 and 19, the area is within 4 km. of the coastline; if they are between 20 and 39, the area is between 4 and 37 km. of the coastline; and if 40 or larger, the area is beyond 37 km.

Catches within 4 km. are infrequent and insignificant. These catches were therefore combined with those from areas immediately offshore. For example, catches from area 306, near Kahoolawe, were combined with those from area 326, which is immediately offshore. After combining, all areas within 37 km. of the coastline were redesignated as inshore; those beyond were called offshore.

Size Classes of Vessels

Hawaiian skipjack tuna fishing vessels vary in fishing power because of differences in vessel size, crew size, and bait-carrying capacities. Variability in fishing power necessitated a separation of the vessels into two size classes according to bait-carrying capacities. Class 1 vessels, manned by small crews and with capacities of less than 3,000 liters per baitwell, range from 24 to 49 gross metric tons. Class 2 vessels, usually with larger crews and capacities greater than 3,000 liters per baitwell, range from 41 to 70 gross metric tons.

Standardization of Catch Per Effort

Although both classes of vessels fish in the same statistical areas, catches of Class 1 vessels are nearly always smaller than those of Class 2. Usually, Class 1 vessels have fewer men hooking and use less bait in fishing. Calculating separate catch per effort for the two size classes complicates the estimation of apparent abundance; therefore, it is desirable to standardize the effort unit to obtain a single index of apparent abundance. Effort is defined as an effective trip, i.e., one on which skipjack tuna were caught. It represents 1 day's fishing, although infrequently trips lasting 2 or 3 days are reported. I have standardized the trips by using Class 2 vessels as the standard size class and translating Class 1 trips into Class 2 or standard trips by using efficiency factors.

Efficiency factors are ratios of yearly catch per effective trip of Class 1 vessels to that of Class 2 vessels; for example, over the entire inshore area in 1948, Class 1 vessels caught 1.63 metric tons per trip; Class 2 vessels caught 2.20 metric tons. The inshore efficiency factor, then, is 1.63/2.20 or 0.74. Offshore, the efficiency factor was 2.57/4.00 or 0.64. The mean efficiency factor (geometric mean of inshore and offshore factors) was 0.69; this value

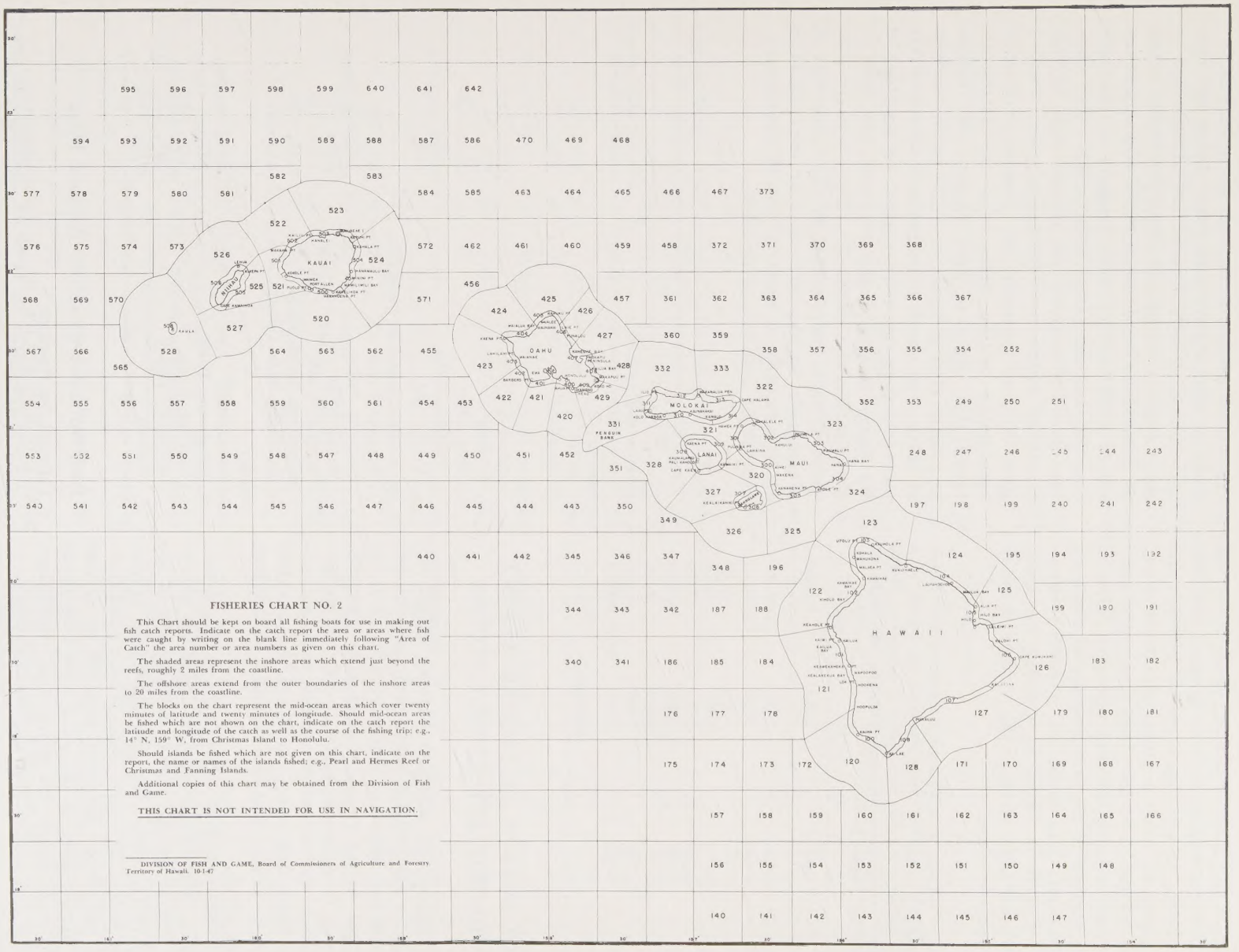
FISHERIES CHART NO. 2
This Chart should be kept on board all fishing boats for use in making out fish catch reports. Indicate on the catch report the area or areas where fish were caught by writing on the blank line immediately following "Area of Catch" the area number or area numbers as given on this chart.
The shaded areas represent the inshore areas which extend just beyond the reefs, roughly 2 miles from the coastline.
The offshore areas extend from the outer boundaries of the inshore areas to 20 miles from the coastline.
The blocks on the chart represent the mid-ocean areas which cover twenty minutes of latitude and twenty minutes of longitude. Should mid-ocean areas be fished which are not shown on the chart, indicate on the catch report the latitude and longitude of the catch as well as the course of the fishing trip; e.g., 14° N, 159° W, from Christmas Island to Honolulu.
Should islands be fished which are not given on this chart, indicate on the report, the name or names of the islands fished; e.g., Pearl and Hermes Reef or Christmas and Fanning Islands.
Additional copies of this chart may be obtained from the Division of Fish and Game.
THIS CHART IS NOT INTENDED FOR USE IN NAVIGATION.
DIVISION OF FISH AND GAME, Board of Commissioners of Agriculture and Forestry Territory of Hawaii. 10-1-47
KAUAI
OAHU
MOLOKAI
LANAI
MAUI
HAWAII
PENGUIN BANK

Figure 1.--Fisheries Chart No. 2 of the Hawaii Division of Fish and Game showing the statistical areas established for Hawaiian waters.

for Class 1 vessels was used to standardize the effort units for that year. For Class 2 vessels, the efficiency factor was fixed at 1.00 for all years (table 1). For a given statistical area, the sum of the products of the mean efficiency factor plus total number of effective trips of the size classes is the total number of standard effective trips. The catch per standard effective trip (Y/f) is found by dividing the total catch for any given area by the number of standard effective trips.

Table 1.--Values of efficiency factors for Class 1 Hawaiian skipjack tuna vessels in terms of a fixed value of 1.00 for Class 2 vessels. These factors were used to standardize the unit of effort in 1948-65

Year	Class 1	Year	Class 1
1948	0.69	1957	0.82
1949	0.68	1958	0.72
1950	0.71	1959	0.80
1951	0.73	1960	0.77
1952	0.74	1961	0.73
1953	0.86	1962	0.68
1954	0.72	1963	0.64
1955	0.84	1964	0.76
1956	0.80	1965	0.83
		Average	0.75

DISTRIBUTION OF FISHING EFFORT AND SKIPJACK TUNA CATCHES

The amount of effective fishing effort expended, the resulting skipjack tuna catches, and the catch per standard effective trip (Y/f), by statistical areas in each quarter in 1948-65, are given in appendix tables 1-18. In the Hawaiian fishery, zero-catch trips were not recorded until July 1964; therefore, for consistency only areas that had catches of skipjack tuna are given.

The distribution of catches in each quarter, as shown by the catch reports, does not necessarily represent the actual distribution of the fish in that quarter, because fishermen usually operate where they have experienced good fishing in the past. Adverse weather in certain areas during part of the year also affects the spatial distribution of effort and, therefore, temporal and spatial distribution of catches.

Although catches of skipjack tuna were made in a fair proportion of the statistical areas shown in figure 1, fishing effort and the resulting catches tended to concentrate in certain regions of each county each year. In the sections that follow, I have limited the discussions to these regions, which are either individual areas or combinations of two or more adjacent areas within each county; these regions do not indicate natural population boundaries. For convenience, the regions are named after certain localities within the Hawaiian Islands. Table 2 lists the four counties, the regions arbitrarily established within them, and the statistical areas that compose each region; the regions are illustrated in figure 2. Total catch, number of trips, and catch per standard effective trip were obtained for each region, by quarters of the year; their 18-year averages are used in the discussions (table 3). The average total catches were represented by four intervals of magnitude: 20.00 metric tons or less, 20.01 to 50.00 metric tons, 50.01 to 100.00 metric tons, and 100.01 metric tons or more.

Table 2.--The fishing regions within each county and the statistical areas that compose them

County and region	Statistical areas
Hawaii	
Hilo	124-126
Kawaihae	122
Maui	
Kahului	322, 323
Kaanapali	321
Cape Kaea	327, 328
Penguin Bank	331
Ilio Point	332
City and County of Honolulu	
Makapuu Point	427-429
Barbers Point	420-422
Kaena Point	423, 424
Kahuku Point	425, 426
Offshore south Oahu	451, 452
Offshore west Oahu	453-455
Kauai	
Nawiliwili	524
Makahuena Point	520
Barking Sands	521, 522
Offshore Kauai	561, 562, 571
Niihau	525, 526

Distribution of Quarterly Skipjack Tuna Catches, by Regions

First quarter.--In 1948-65, fishing was usually poorest in the first quarter. The quarter was characterized by few trips (as a result of vessel maintenance layups), low abundance, and

Table 3.--Average catch in metric tons (Y), average number of standard effective trips (f), average catch per standard effective trip in metric tons (Y/f), and the number of quarters (Q), in which some catches were reported in each of the regions, for all years

Region	Kind of data	First quarter	Second quarter	Third quarter	Fourth quarter
Hilo	Y	15.56	147.32	227.30	47.42
	f	18.64	67.12	81.11	34.43
	Y/f	0.77	2.17	2.76	1.41
	Q	18	18	18	18
Kawaihae	Y	14.12	21.22	30.64	21.61
	f	6.78	8.63	10.36	7.81
	Y/f	1.70	2.42	3.37	2.28
	Q	13	13	14	16
Kahului	Y	8.73	64.56	112.39	13.00
	f	3.68	20.64	32.02	7.53
	Y/f	1.55	3.16	3.67	1.85
	Q	12	18	18	16
Kaanapali	Y	8.56	28.30	15.43	3.76
	f	4.43	13.59	8.00	3.02
	Y/f	1.33	2.24	2.60	1.19
	Q	8	6	8	7
Cape Kaea	Y	72.83	115.30	136.88	65.02
	f	49.18	46.04	43.45	36.83
	Y/f	1.37	2.12	2.98	1.78
	Q	18	18	18	18
Penguin Bank	Y	22.98	43.40	44.10	17.82
	f	20.09	21.99	29.13	12.01
	Y/f	1.15	1.78	2.24	1.46
	Q	18	18	18	18
Ilio Point	Y	22.40	34.02	57.06	18.84
	f	11.52	12.74	17.25	10.56
	Y/f	1.32	2.32	2.86	1.85
	Q	17	18	18	18
Makapuu Point	Y	34.47	81.71	93.05	34.68
	f	22.92	31.12	41.47	20.11
	Y/f	1.18	2.49	2.91	1.85
	Q	18	18	18	18
Barbers Point	Y	34.26	94.05	126.30	43.56
	f	24.02	38.21	40.70	23.52
	Y/f	1.36	2.17	2.88	1.72
	Q	18	18	18	18
Kaena Point	Y	53.62	182.28	233.22	59.38
	f	37.78	88.09	80.22	35.74
	Y/f	1.27	2.15	2.76	1.62
	Q	18	18	18	18
Kahuku Point	Y	23.37	141.48	152.58	19.03
	f	12.16	41.67	39.01	10.28
	Y/f	1.68	3.11	3.63	2.00
	Q	14	18	18	16
Offshore west Oahu	Y	11.68	77.56	149.53	35.65
	f	6.16	23.47	92.86	13.40
	Y/f	2.59	2.52	3.68	2.40
	Q	11	18	17	15
Offshore south Oahu	Y	13.00	75.33	87.81	15.12
	f	7.65	19.65	21.62	7.55
	Y/f	1.39	2.52	3.57	1.69
	Q	17	15	17	15
Nawiliwili	Y	6.18	41.09	16.27	13.23
	f	2.49	8.70	3.13	4.00
	Y/f	2.60	4.61	4.02	3.17
	Q	7	11	15	14
Makahuena Point	Y	5.76	10.17	23.32	13.81
	f	1.98	2.58	4.69	3.54
	Y/f	2.16	3.29	4.57	3.71
	Q	6	13	10	14
Barking Sands	Y	15.88	23.33	23.24	27.69
	f	6.53	4.15	6.02	9.11
	Y/f	2.25	4.64	3.70	2.93
	Q	15	14	17	18
Offshore Kauai	Y	10.27	30.39	54.04	8.19
	f	4.21	8.50	12.04	2.90
	Y/f	1.88	3.13	4.35	3.20
	Q	10	15	18	14
Niihau	Y	7.08	20.12	45.38	19.34
	f	3.99	5.07	9.30	6.53
	Y/f	1.88	3.61	5.30	2.87
	Q	12	10	14	17

generally unfavorable weather. The fleet averaged 249 standard effective trips (hereafter shortened to trips), which accounted for about 15 percent of the approximately 1,600 trips annually. First-quarter catches were usually small and over the 18-year period averaged about 385 metric tons or about 9 percent of the average annual catch.

Although most of the skipjack tuna fishing in Hawaiian waters was near Oahu (table 4) in all quarters, a fairly high percentage also occurred around Maui. Two regions usually produced fairly high catches in the first quarter (fig. 3)--one off Cape Kaea, where the quarterly total catches averaged 73 metric tons, and one off Kaena Point, where they averaged about 54 metric tons. The remaining regions off Oahu (excluding the offshore regions), off Ilio Point, and Penguin Bank usually produced fair catches that averaged between 20 and 50 metric tons. Other regions usually produced poor catches which averaged about 20 metric tons or less.

Second quarter.--The first appearance of large "season fish" that range from about 7 to 11 kg. marks the real beginning of the skipjack tuna fishing season in Hawaiian waters.

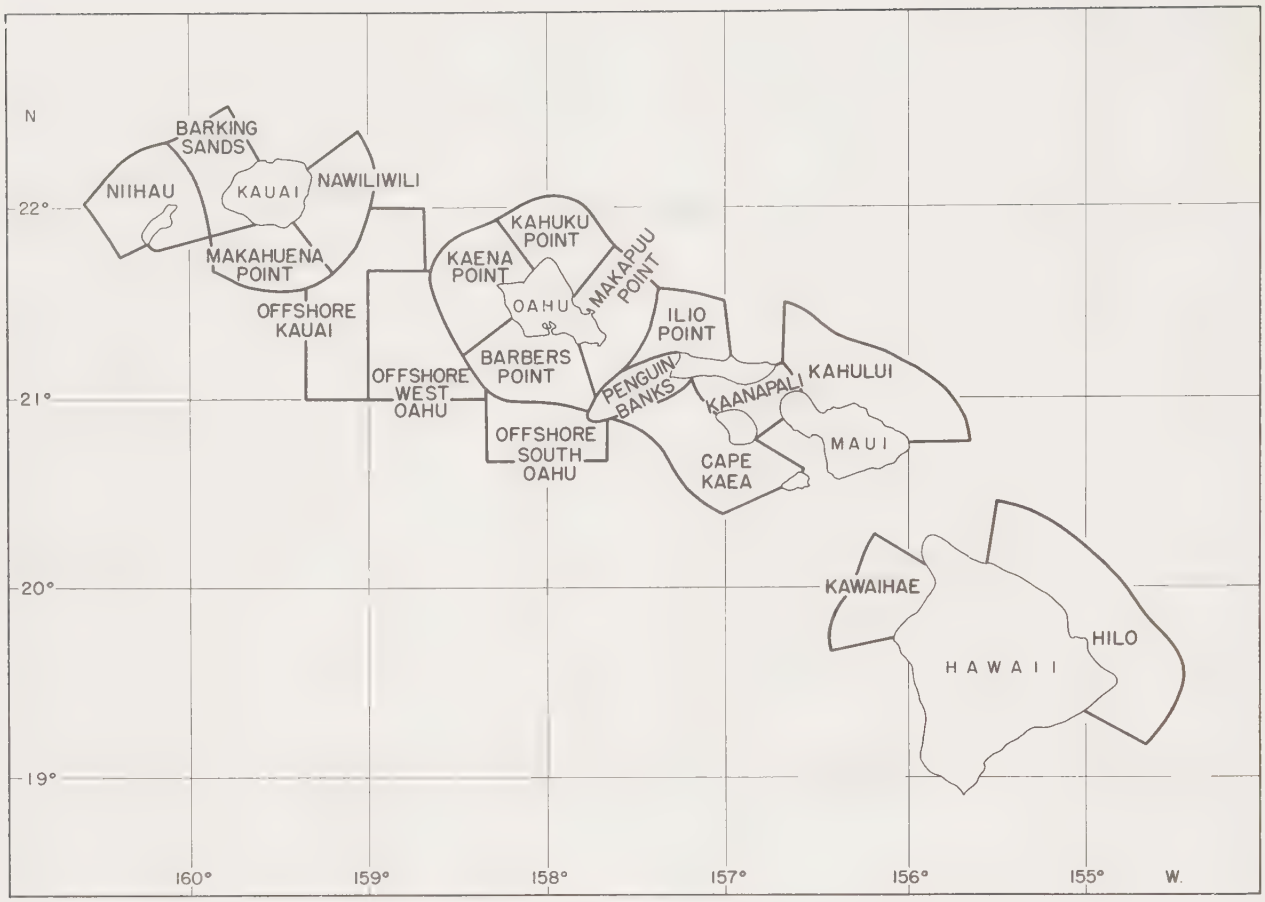

Figure 2.--The locations of fishing regions established for this study.

Table 4.--Percentages of catch and effort expended in each county of the Hawaiian Islands, by quarters, 1948-65

County and measure	First quarter	Second quarter	Third quarter	Fourth quarter
	Percent	Percent	Percent	Percent
Hawaii				
Catch	8	13	13	15
Effort	10	16	16	17
Maui				
Catch	40	27	27	29
Effort	40	27	28	32
City and County of Honolulu				
Catch	44	53	52	40
Effort	44	52	50	41
Kauai				
Catch	8	7	8	16
Effort	6	5	6	10

Fishing usually began to intensify about May, and over the years second-quarter effort averaged about 513 trips, which represented about 32 percent of the annual effort. Second-quarter catches, which usually were about one-third of the total annual catch, rose correspondingly to an average of 1,414 metric tons or nearly three times the average amount landed in the first quarter.

High catches were usually concentrated in four regions in this quarter--off Hilo, off Cape Kaea, off Kaena Point, and off Kahuku Point (fig. 4). Together, they contributed a substantial 41 percent to the second-quarter landings. The catches off Hilo, which averaged only about 16 metric tons in the first quarter, increased roughly nine times that amount in the second quarter (table 3). Much of this sizable increase contributed to the rise in the proportion of fish taken in this quarter over the previous

quarter from waters around Hawaii County (table 4). Contrarily, the proportion caught in Maui County regions decreased from 40 to 27 percent of the total between the first and second quarters, although all these regions usually showed increases in catches over the previous quarter. Catches off Cape Kaea, although fairly good in the first quarter, moved upward to an average of 115 metric tons. Around Oahu, good catches were usually concentrated in the regions to the north (Kahuku Point) and to the west (Kaena Point) of the island. The high catches in these regions, which averaged 141 and 182 metric tons, respectively, contributed to the increase in the proportion of skipjack tuna caught around Oahu (table 4). Regions of fairly good catches--those falling between 50 and 100 metric tons--occurred in both offshore west and south Oahu, off Kahului, off Makapuu Point, and off Barbers Point. The remaining regions usually had fair catches of between 20 and 50 metric tons; the exception was Makahuena Point, where catches averaged 20 metric tons or less over the years.

Third quarter.--Fishing effort usually was maximized and led to peak catches in 15 of the 18 third quarters examined. The fleet averaged about 577 trips in this quarter, which accounted for about 36 percent of the average annual total. From second-quarter landings that averaged 1,414 metric tons, third-quarter landings increased to about 2,000 metric tons, which represented a sizable 46 percent of the average annual catch.

Catches from the four high-producing regions of the second quarter--off Hilo, off Cape Kaea, off Kaena Point, and off Kahuku Point--usually continued their upward trend and reached their maximum in the third quarter (fig. 5). Catches off Hilo usually showed the largest increase in total catches as the average moved from 147 metric tons in the previous quarter to 227 metric tons, an increase of 80 metric tons. Good fishing off Cape Kaea in the second quarter usually persisted into the third quarter despite a slight decline in the amount of effort expended (table 3). Catches usually increased slightly over the previous quarter. In the other two high-producing regions of the second quarter, catches increased 51 metric tons off Kaena Point and 11 metric tons off Kahuku Point.

There was one other region in Maui County with prominent catches in the third quarter. The catches made off Kahului (112 metric tons as compared with 64 in the second quarter) augmented the catches from other Maui County regions--particularly off Kaanapali, where the catches usually decreased (table 3).

Off Oahu, the two high-producing regions were joined by two others that had high catches--Barbers Point and offshore west Oahu. Together, these four regions usually had catches that represented 64 percent of the catches from around Oahu in the third quarter. From the second to third quarters, the increases averaged 32 metric tons off Barbers Point and nearly 72 metric tons in offshore west Oahu. Although the largest average increase in catch was in offshore west Oahu, the catches averaged highest off Kaena Point, where they reached 233 metric tons.

Of the other regions, eight had increased and one had decreased catches in the third quarter. Regions with fairly good catches of between 50 and 100 metric tons included Ilio Point, Makapuu Point, offshore south Oahu, and offshore Kauai. As in the region off Kaanapali, catches usually declined off Nawiliwili in the third quarter after reaching a peak in the previous quarter. Off Barking Sands, catches remained at about the same level as in the second quarter.

Fourth quarter.--As abundance starts to decline in the fall, the curtailment of fishing results in considerably lower catches in the fourth quarter. The average amount of fishing effort expended was about 268 trips, or about 17 percent of the average annual effort. Fourth-quarter catches usually were slightly heavier than the first-quarter catches and over the 18-year period averaged 521 metric tons or about 12 percent of the average annual catch.

As in the first quarter, none of the regions in the fourth quarter produced catches that averaged more than 100 metric tons (fig. 6). Fairly high catches, however, were centered usually in two regions, both of which were also fairly high-producing regions in the first quarter. These regions--Cape Kaea with an average of 65 metric tons and Kaena Point with an average of 59 metric tons--had nearly one-fourth of the average fourth-quarter landings. Six other regions had fair catches (20-50 metric tons): Hilo, Kawaihae, Makapuu Point, Barbers Point, offshore west Oahu, and Barking Sands. Reference to table 4 shows an interesting rise in the proportion of fish caught and effort expended in the Kauai regions relative to those in other counties. The fishermen attribute this shift in

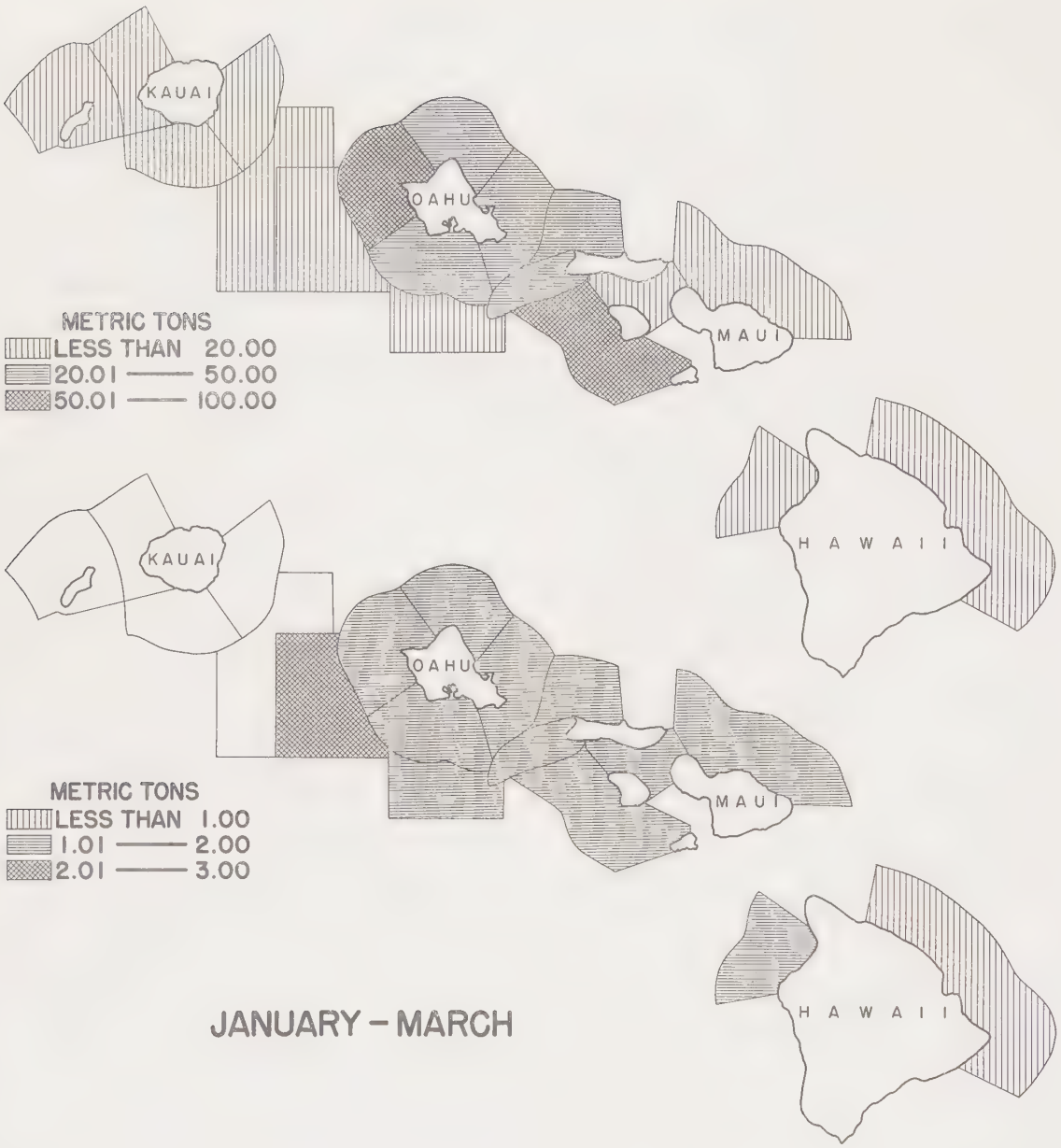

Figure 3.--Distribution of skipjack tuna catches (top) and catch per standard effective trip (bottom) averaged over an 18-year period, by regions, first quarter, 1948-65.

fishing effort and catch to the temporary appearance of medium-sized tuna (4-7 km.) near Kauai usually about December but occasionally in early January.

Apparent Abundance of Skipjack Tuna

Catches per standard effective trip (Y/f), by quarters of the year and by statistical areas, are given in appendix tables 1-18.

Geographical trend, by regions.--The apparent abundance of skipjack tuna was usually much higher in the regions around Kauai (Nawiliwili, Makahuena Point, Barking Sands, offshore Kauai, and Niihau) than in the other regions. Actually, it is obvious from table 3 that apparent abundance increases from Hawaii to Kauai County. Shippen (1961), who analyzed the 1952-53 catch and effort distribution in the

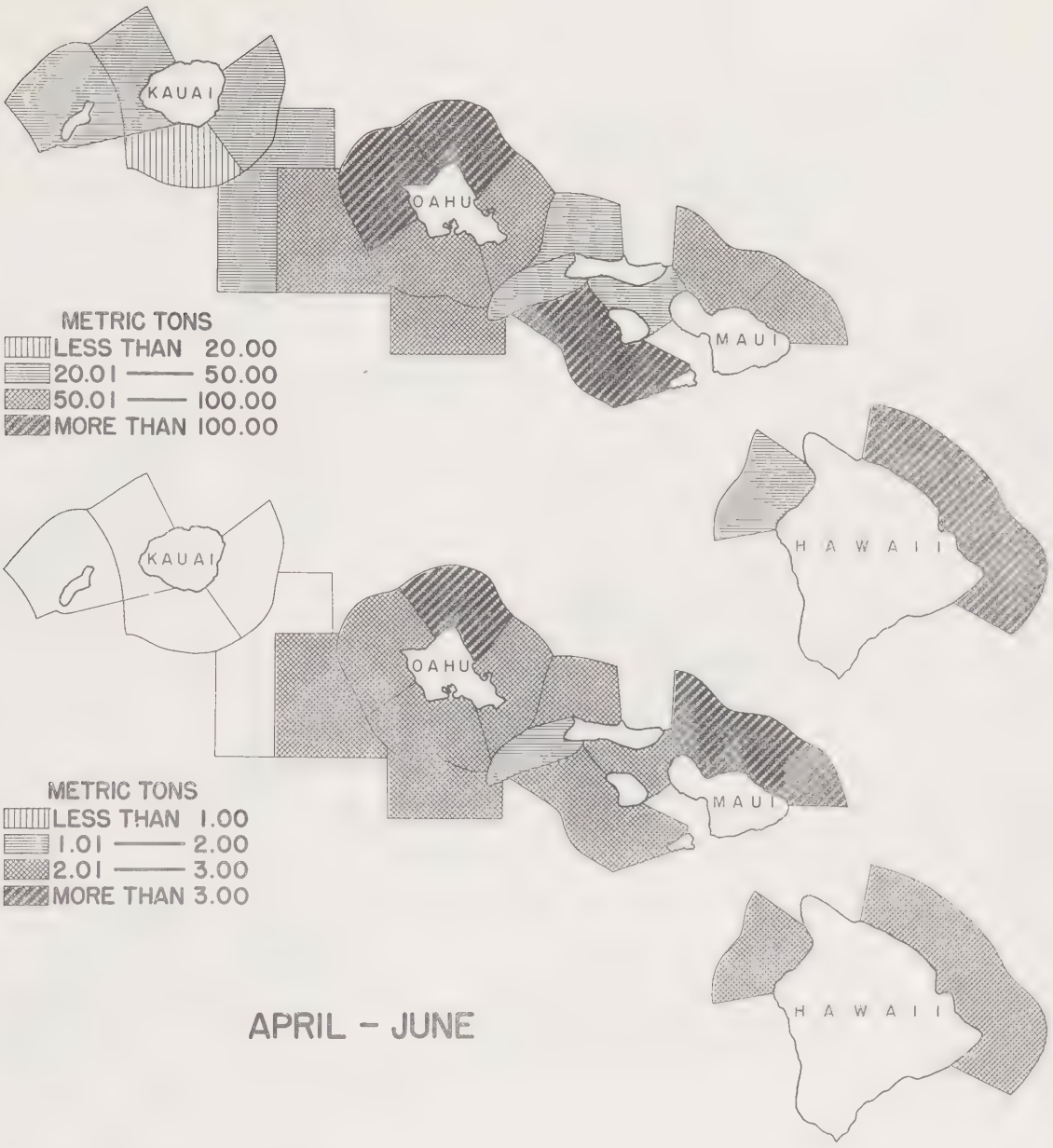

Figure 4.--Distribution of skipjack tuna catches (top) and catch per standard effective trip (bottom) averaged over an 18-year period, by regions, second quarter, 1948-65.

fishery, found a similar trend but believed it did not reflect a change in abundance. He stated that the increasing trend resulted from inequities in the distribution of effort and from occasional multiple-day trips which occur annually, particularly among Oahu-based vessels traveling to Kauai and other neighboring islands. The Y/f calculated for Kauai regions, therefore, may not be representative of apparent abundance of these regions. Because data from the fishermen's catch reports do not show the number of days fished per trip, it is not possible to isolate multiple-day trips to the Kauai regions. In the following section, therefore, apparent abundance in the Kauai regions is not discussed; catch per trip was also omitted from figures 3-6.

Quarterly trend, by regions.--The quarterly

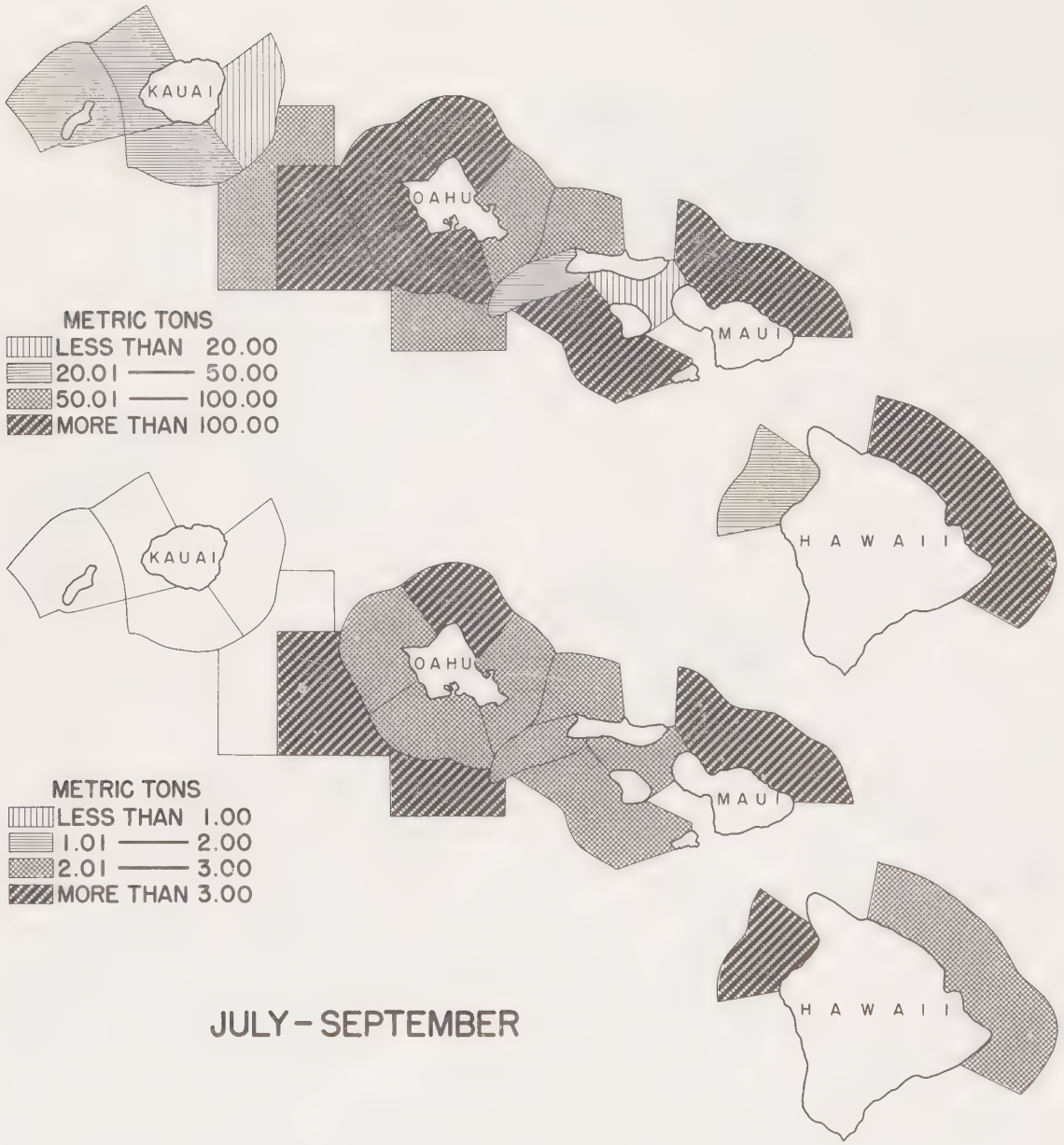

Figure 5.--Distribution of skipjack tuna catches (top) and catch per standard effective trip (bottom) averaged over an 18-year period, by regions, third quarter, 1948-65.

trend of apparent abundance showed some striking differences from the trend of average total catches discussed previously. For example, the apparent abundance in the first quarter was highest in offshore west Oahu (2.59 metric tons per trip), whereas the average total catch in the same period was highest off Cape Kaea (fig. 3). Actually, the apparent abundance was nearly twice as high in offshore west Oahu as off Cape Kaea (table 3). Apparent abundance in most of the other regions in this quarter was fair and ranged between 1 and 2 metric tons; off Hilo, however, Y/f averaged less than 1 metric ton.

An increase in apparent abundance usually occurred in all regions in the second quarter (table 3). The exception was offshore west Oahu, where Y/f remained at about the same

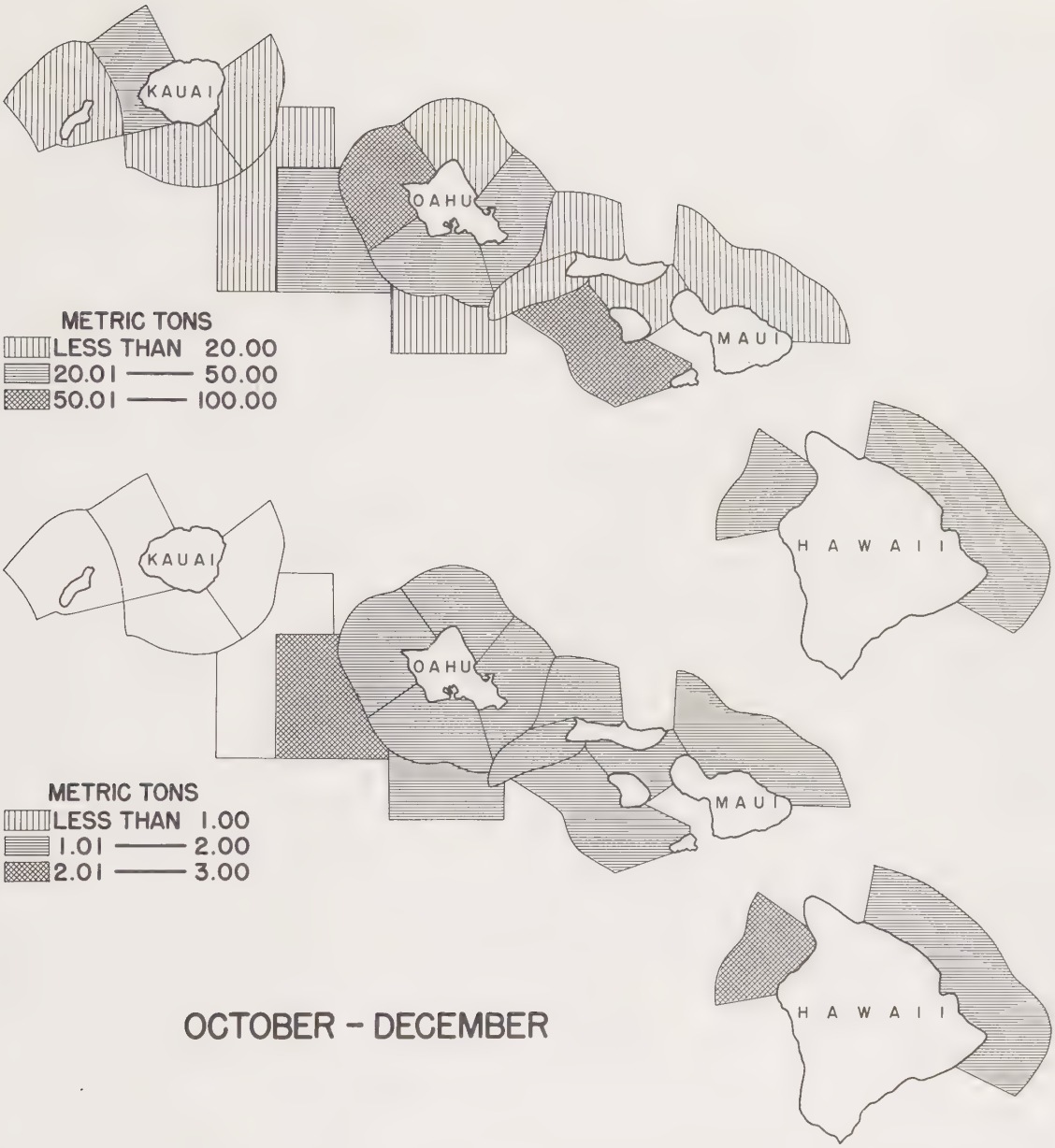

Figure 6.--Distribution of skipjack tuna catches (top) and catch per standard effective trip (bottom) averaged over an 18-year period, by regions, fourth quarter, 1948-65.

level as in the first quarter. As shown in figure 4, peak abundance usually occurred off Kahului and off Kahuku Point, where Y/f averaged 3.16 and 3.11 metric tons, respectively. Although the high apparent abundance off Kahului does not coincide with the region of high total catches off Cape Kaea from Maui County, it appeared that the high apparent abundance in waters off the City and County of Honolulu was one of the factors contributing to high total catches off Kahuku Point. Table 3 shows that the increase in apparent abundance was highest off Kahuku Point, where Y/f more than doubled from the first to the second quarter.

The intensification of fishing in the third quarter resulted usually from increased apparent abundance in Hawaiian waters. In this quarter, those regions in which apparent abundance

contributed usually to high average catches were off Kahului, off Kahuku Point, and in offshore west Oahu (fig. 5). Other regions of high apparent abundance were off Kawaihae and in the offshore region south of Oahu, where, incidentally, the apparent abundance usually showed the largest increase between the second and third quarters. Another region which showed a large average increase in apparent abundance between these quarters was the offshore region west of Oahu. In all the remaining regions examined in the third quarter, the Y/f averaged between 2 and 3 metric tons.

The apparent abundance of skipjack tuna was usually higher in the fourth quarter than in the first quarter but considerably lower than in the second and third quarters. Figure 6 shows that the distribution of apparent abundance was similar to that shown for the first quarter, with two exceptions (fig. 3). In the region off Hilo Y/f averaged less than 1 metric ton in the first quarter, whereas it averaged between 1 and 2 metric tons in the fourth quarter. The region off Kawaihae also had higher apparent abundance in the fourth than in the first quarter. The regions off Kawaihae and offshore west Oahu had the highest apparent abundance, averaging 2.40 and 2.28 metric tons, respectively, in this quarter. Although the decline in apparent abundance in the fourth quarter was evident in all regions, two regions showed sharper declines than the others. The Y/f decreased from 3.57 to 1.69 metric tons in the offshore region south of Oahu, and from 3.67 to 1.82 metric tons off Kahului.

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APPENDIX TABLES

Appendix table 1.--Total catch (Y), standard effective trip (f), and catch per standard effective trip (Y/f) according to statistical areas, by quarters of the year, 1948

Area	First quarter			Second quarter			Third quarter			Fourth quarter			Annual		
	Y	f	Y/f	Y	f	Y/f	Y	f	Y/f	Y	f	Y/f	Y	f	Y/f
	Metric tons	Number	Metric tons	Metric tons	Number	Metric tons	Metric tons	Number	Metric tons	Metric tons	Number	Metric tons	Metric tons	Number	Metric tons
122	-	-	-	0.47	0.69	0.68	-	-	-	0.40	0.69	0.58	0.87	1.38	0.63
124	-	-	-	-	-	-	1.05	0.69	1.52	-	-	-	1.05	0.69	1.52
125	8.69	7.59	1.14	40.31	16.56	2.43	50.87	16.56	3.07	11.11	5.52	2.01	110.98	46.23	2.40
126	0.20	0.69	0.28	5.90	2.76	2.14	30.73	7.59	4.05	-	-	-	36.83	11.04	3.34
320	3.75	2.00	1.88	0.31	1.38	0.22	1.77	2.07	0.85	5.40	5.52	0.98	11.23	10.97	1.02
321	37.56	18.63	2.02	64.59	44.40	1.45	85.16	50.68	1.68	17.17	13.80	1.24	204.48	127.51	1.60
322	-	-	-	5.75	2.07	2.78	-	-	-	5.23	3.45	1.52	10.98	5.52	1.99
323	-	-	-	-	-	-	51.51	15.87	3.25	7.72	2.76	2.80	59.23	18.63	3.18
324	-	-	-	-	-	-	23.67	4.83	4.90	4.64	1.00	4.64	28.31	5.83	4.86
325	11.63	5.00	2.33	-	-	-	9.49	3.45	2.75	-	-	-	21.12	8.45	2.50
326	1.66	0.69	2.41	-	-	-	5.87	3.45	1.70	1.02	1.69	0.60	8.55	5.83	1.47
327	34.94	8.52	4.10	14.07	4.38	3.21	25.51	7.59	3.36	13.47	4.83	2.79	87.99	25.32	3.48
328	124.17	52.88	2.35	61.80	47.67	1.30	7.50	2.76	2.72	13.78	5.83	2.36	207.25	109.14	1.90
331	21.51	13.83	1.56	69.15	42.94	1.61	26.93	20.45	1.32	5.65	4.76	1.19	123.24	81.98	1.50
332	72.78	24.32	2.99	26.79	20.11	1.33	51.10	17.14	2.98	21.16	19.66	1.08	171.83	81.23	2.12
333	76.94	11.90	6.47	14.18	6.14	2.31	29.00	4.76	6.09	5.35	1.38	3.88	125.47	24.18	5.19
346	-	-	-	0.39	0.69	0.57	-	-	-	-	-	-	0.39	0.69	0.57
351	0.31	1.00	0.31	-	-	-	-	-	-	-	-	-	0.31	1.00	0.31
359	-	-	-	-	-	-	15.34	2.00	7.67	-	-	-	15.34	2.00	7.67
360	-	-	-	-	-	-	26.07	4.38	5.95	0.23	0.69	0.33	26.30	5.07	5.19
361	-	-	-	-	-	-	9.38	2.00	4.69	-	-	-	9.38	2.00	4.69
362	-	-	-	-	-	-	30.89	4.00	7.72	-	-	-	30.89	4.00	7.72
363	-	-	-	-	-	-	4.02	1.00	4.02	-	-	-	4.02	1.00	4.02
420	60.46	23.73	2.55	32.05	16.52	1.94	37.91	8.83	4.29	3.31	3.45	0.96	133.73	52.53	2.54
421	14.93	8.45	1.77	7.12	11.45	0.62	14.72	3.69	3.99	0.75	3.07	0.24	37.52	26.66	1.41
422	17.39	14.14	1.23	22.28	11.83	1.88	48.79	16.90	2.89	1.24	1.38	0.90	89.70	44.25	2.03
423	108.95	30.42	3.58	77.80	58.95	1.32	211.97	84.33	2.51	15.57	14.66	1.06	414.29	188.36	2.20
424	13.29	5.83	2.28	35.50	20.66	1.72	74.33	28.73	2.59	13.53	14.76	0.92	136.65	69.98	1.95
425	13.87	10.59	1.31	90.76	36.70	2.47	215.87	54.60	3.95	8.59	6.52	1.32	329.09	108.41	3.04
426	31.21	9.00	3.47	19.85	11.90	1.67	173.03	45.08	3.84	1.33	1.38	0.96	225.42	67.36	3.35
427	10.19	6.83	1.49	41.65	20.63	2.02	81.88	30.28	2.70	12.69	8.90	1.43	146.41	66.64	2.20
428	50.81	36.63	1.39	44.26	42.32	1.05	19.55	10.83	1.80	16.94	8.97	1.89	131.56	98.75	1.33
429	81.67	35.91	2.27	33.04	18.04	1.83	12.22	6.52	1.87	1.40	2.38	0.59	128.33	62.85	2.04
440	1.81	0.69	2.63	-	-	-	-	-	-	-	-	-	1.81	0.69	2.63
443	-	-	-	0.18	0.69	0.27	-	-	-	-	-	-	0.18	0.69	0.27
447	-	-	-	-	-	-	9.17	3.00	3.06	-	-	-	9.17	3.00	3.06
449	-	-	-	-	-	-	11.70	3.00	3.90	-	-	-	11.70	3.00	3.90
451	0.50	1.38	0.36	-	-	-	-	-	-	-	-	-	0.50	1.38	0.36
452	3.91	1.00	3.91	-	-	-	-	-	-	-	-	-	3.91	1.00	3.91
453	-	-	-	-	-	-	8.26	3.00	2.75	0.40	1.00	0.40	8.66	4.00	2.16
454	-	-	-	1.18	1.00	1.18	0.37	1.00	0.37	-	-	-	1.55	2.00	0.78
455	13.99	2.00	7.00	2.00	1.38	1.45	93.31	21.35	4.37	17.73	10.14	1.75	127.03	34.87	3.64
456	-	-	-	-	-	-	9.83	2.00	4.91	1.45	0.69	2.10	11.28	2.69	4.19
457	0.26	0.69	0.38	-	-	-	13.59	2.00	6.80	-	-	-	13.85	2.69	5.15
458	-	-	-	5.03	1.00	5.03	4.59	2.00	2.29	-	-	-	9.62	3.00	3.21

Appendix table 1.--Total catch (Y), standard effective trip (f), and catch per standard effective trip (Y/f) according to statistical areas, by quarters of the year, 1948--Continued

Area	First quarter			Second quarter			Third quarter			Fourth quarter			Annual		
	Y	f	Y/f	Y	f	Y/f	Y	f	Y/f	Y	f	Y/f	Y	f	Y/f
	Metric tons	Number	Metric tons	Metric tons	Number	Metric tons	Metric tons	Number	Metric tons	Metric tons	Number	Metric tons	Metric tons	Number	Metric tons
459	-	-	-	-	-	-	37.43	4.07	9.20	-	-	-	37.43	4.07	9.20
460	-	-	-	1.14	0.69	1.66	3.73	1.69	2.21	0.96	1.38	0.69	5.83	3.76	1.55
462	-	-	-	8.07	2.00	4.04	-	-	-	-	-	-	8.07	2.00	4.04
465	-	-	-	-	-	-	0.46	1.00	0.46	-	-	-	0.46	1.00	0.46
520	-	-	-	0.13	0.69	0.18	44.48	7.14	6.23	20.76	8.00	2.59	65.37	15.83	4.13
521	-	-	-	12.59	4.07	3.09	13.39	4.07	3.29	53.73	21.21	2.53	79.71	29.35	2.72
522	-	-	-	30.61	2.38	12.86	1.19	1.69	0.71	0.70	1.00	0.70	32.50	5.07	6.41
524	-	-	-	28.70	6.45	4.45	0.52	0.69	0.76	12.35	4.38	2.82	41.57	11.52	3.61
525	-	-	-	5.23	1.00	5.23	7.58	1.38	5.49	2.49	1.38	1.81	15.30	3.76	4.07
526	-	-	-	27.58	5.07	5.44	34.80	5.14	6.77	11.29	6.45	1.75	73.67	16.66	4.42
561	-	-	-	-	-	-	7.19	2.00	3.59	-	-	-	7.19	2.00	3.59
562	-	-	-	-	-	-	48.71	6.76	7.21	-	-	-	48.71	6.76	7.21
563	-	-	-	-	-	-	1.27	1.00	1.27	-	-	-	1.27	1.00	1.27
571	-	-	-	26.53	8.69	3.05	53.83	15.35	3.51	6.25	4.38	1.43	86.61	28.42	3.05
572	-	-	-	1.01	1.00	1.01	8.60	1.00	8.60	-	-	-	9.61	2.00	4.80
Total	817.38	334.34	2.44	858.00	474.90	1.81	1,790.13	551.39	3.25	315.79	197.06	1.60	3,781.30	1,557.69	2.43

Appendix table 2.--Total catch (Y), standard effective trip (f), and catch per standard effective trip (Y/f) according to statistical areas, by quarters of the year, 1949

Area	First quarter			Second quarter			Third quarter			Fourth quarter			Annual		
	Y	f	Y/f	Y	f	Y/f	Y	f	Y/f	Y	f	Y/f	Y	f	Y/f
	Metric tons	Number	Metric tons	Metric tons	Number	Metric tons	Metric tons	Number	Metric tons	Metric tons	Number	Metric tons	Metric tons	Number	Metric tons
121	-	-	-	-	-	-	-	-	-	13.85	4.68	2.96	13.85	4.68	2.96
122	-	-	-	-	-	-	-	-	-	78.81	22.40	3.52	78.81	22.40	3.52
123	-	-	-	-	-	-	-	-	-	13.62	5.08	2.68	13.62	5.08	2.68
125	1.61	4.08	0.39	105.73	38.36	2.76	185.26	61.48	3.01	24.10	12.12	1.99	316.70	116.04	2.73
126	1.50	2.04	0.73	2.54	1.68	1.51	91.38	27.20	3.36	39.31	20.48	1.92	134.73	51.40	2.62
320	-	-	-	-	-	-	0.16	0.68	0.23	-	-	-	0.16	0.68	0.23
321	25.76	11.56	2.23	37.32	13.92	2.68	1.74	0.68	2.57	0.87	1.00	0.87	65.69	27.16	2.42
322	-	-	-	2.27	1.36	1.67	-	-	-	-	-	-	2.27	1.36	1.67
323	1.54	2.04	0.76	56.86	14.28	3.98	7.43	1.36	5.47	-	-	-	65.83	17.68	3.72
324	-	-	-	12.38	2.72	4.55	-	-	-	0.93	0.68	1.36	13.31	3.40	3.91
325	-	-	-	2.88	0.68	4.23	24.36	7.48	3.26	1.51	0.68	2.21	28.75	8.84	3.25
326	-	-	-	2.96	2.04	1.45	32.01	15.64	2.05	-	-	-	34.97	17.68	1.98
327	1.70	2.00	0.85	0.98	0.68	1.44	88.64	25.84	3.43	5.51	4.08	1.35	96.83	32.60	2.97
328	6.76	7.44	0.91	20.24	9.80	2.07	68.81	26.48	2.60	20.04	8.80	2.28	115.85	52.52	2.20
331	15.47	15.48	1.00	47.62	38.44	1.24	24.19	12.20	1.98	7.53	12.44	0.61	94.81	78.56	1.21
332	3.33	5.08	0.66	221.11	57.48	3.85	52.43	23.48	2.23	29.63	19.16	1.55	306.50	105.20	2.91
333	0.53	1.68	0.31	14.80	3.36	4.40	28.24	11.04	2.56	6.50	3.00	2.17	50.07	19.08	2.62
340	-	-	-	6.97	1.36	5.12	-	-	-	-	-	-	6.97	1.36	5.12
350	-	-	-	7.75	0.68	11.40	-	-	-	0.42	0.68	0.61	8.17	1.36	6.01
351	-	-	-	0.20	1.00	0.20	1.09	0.68	1.60	2.11	1.00	2.11	3.40	2.68	1.27
358	-	-	-	14.85	1.36	10.92	19.17	6.00	3.20	-	-	-	34.02	7.36	4.62
359	-	-	-	11.28	3.36	3.36	21.31	3.00	7.10	-	-	-	32.59	6.36	5.12
360	1.58	0.68	2.32	61.65	11.36	5.43	40.17	9.00	4.46	-	-	-	103.40	21.04	4.91
420	3.87	3.04	1.27	9.02	8.44	1.07	50.96	14.80	3.44	3.05	7.04	0.43	66.90	33.32	2.01
421	0.18	0.68	0.26	10.69	2.00	5.35	50.13	15.52	3.23	3.76	1.68	2.24	64.76	19.88	3.26
422	-	-	-	78.26	27.76	2.82	153.60	36.32	4.23	2.51	3.36	0.75	234.37	67.44	3.48
423	5.60	8.16	0.69	73.81	35.64	2.07	306.85	80.12	3.83	16.32	25.56	0.64	402.58	149.48	2.69
424	1.82	2.72	0.67	40.47	11.48	3.53	37.02	10.72	3.45	9.60	8.76	1.10	88.91	33.68	2.64
425	6.43	5.40	1.19	224.08	65.92	3.40	71.51	22.16	3.23	22.42	15.08	1.49	324.44	108.56	2.99
426	6.00	1.36	4.41	103.77	28.88	3.59	109.86	33.88	3.24	26.65	17.16	1.55	246.28	81.28	3.03

Appendix table 2.--Total catch (Y), standard effective trip (f), and catch per standard effective trip (Y/f) according to statistical areas, by quarters of the year, 1949--Continued

Area	First quarter			Second quarter			Third quarter			Fourth quarter			Annual		
	Y	f	Y/f	Y	f	Y/f	Y	f	Y/f	Y	f	Y/f	Y	f	Y/f
	Metric tons	Number	Metric tons	Metric tons	Number	Metric tons	Metric tons	Number	Metric tons	Metric tons	Number	Metric tons	Metric tons	Number	Metric tons
427	0.20	0.68	0.30	266.30	78.96	3.37	127.44	35.08	3.63	15.76	8.40	1.88	409.70	123.12	3.33
428	0.44	1.36	0.32	10.00	6.40	1.56	6.63	3.40	1.95	8.12	7.12	1.14	25.19	18.28	1.38
429	4.19	5.04	0.83	1.92	1.68	1.15	5.86	3.72	1.57	7.36	4.72	1.56	19.33	15.16	1.28
440	-	-	-	-	-	-	17.58	2.04	8.62	-	-	-	17.58	2.04	8.62
441	-	-	-	-	-	-	7.93	2.04	3.89	-	-	-	7.93	2.04	3.89
442	-	-	-	-	-	-	2.02	1.00	2.02	-	-	-	2.02	1.00	2.02
443	-	-	-	-	-	-	2.96	0.68	4.36	-	-	-	2.96	0.68	4.36
444	-	-	-	-	-	-	4.15	0.68	6.10	-	-	-	4.15	0.68	6.10
446	-	-	-	-	-	-	12.55	0.68	18.46	-	-	-	12.55	0.68	18.46
450	-	-	-	-	-	-	29.18	5.08	5.74	-	-	-	29.18	5.08	5.74
451	-	-	-	-	-	-	131.74	24.24	5.43	-	-	-	131.74	24.24	5.43
452	0.32	0.68	0.46	-	-	-	95.03	17.84	5.33	2.18	3.40	0.64	97.53	21.92	4.45
453	-	-	-	4.96	2.00	2.48	32.59	6.76	4.82	0.25	0.68	0.36	37.80	9.44	4.00
454	-	-	-	-	-	-	16.79	4.04	4.16	-	-	-	16.79	4.04	4.16
455	-	-	-	1.05	0.68	1.54	120.21	31.28	3.84	2.32	2.04	1.14	123.58	34.00	3.63
456	-	-	-	7.21	1.68	4.29	3.47	2.00	1.73	-	-	-	10.68	3.68	2.90
457	-	-	-	47.04	5.76	8.17	5.42	0.68	7.98	-	-	-	52.46	6.44	8.14
460	1.57	1.36	1.15	18.55	5.40	3.43	5.84	1.68	3.47	-	-	-	25.96	8.44	3.08
461	-	-	-	18.65	4.40	4.24	14.83	2.68	5.53	-	-	-	33.48	7.08	4.73
462	-	-	-	-	-	-	11.25	2.00	5.63	0.15	0.68	0.22	11.40	2.68	4.25
465	-	-	-	-	-	-	10.92	0.68	16.05	-	-	-	10.92	0.68	16.05
468	-	-	-	-	-	-	17.88	0.68	26.29	-	-	-	17.88	0.68	26.29
520	5.70	4.36	1.31	-	-	-	60.01	15.00	4.00	0.96	1.00	0.96	66.67	20.36	3.27
521	9.52	6.72	1.42	1.09	1.00	1.09	1.26	1.00	1.26	23.31	6.68	3.49	35.18	15.40	2.28
522	23.01	10.04	2.29	-	-	-	1.20	1.00	1.20	9.36	3.04	3.08	33.57	14.08	2.38
523	5.15	2.04	2.52	0.16	1.00	0.16	-	-	-	-	-	-	5.31	3.04	1.75
524	0.42	1.68	0.25	1.66	0.68	2.44	4.12	0.68	6.06	6.90	4.08	1.69	13.10	7.12	1.84
525	0.55	1.68	0.33	-	-	-	4.91	1.00	4.91	4.24	4.00	1.06	9.70	6.68	1.45
526	1.48	2.00	0.74	-	-	-	0.36	0.68	0.53	2.12	1.36	1.56	3.96	4.04	0.98
527	-	-	-	-	-	-	-	-	-	1.77	2.04	0.87	1.77	2.04	0.87
528	-	-	-	-	-	-	-	-	-	0.59	1.00	0.59	0.59	1.00	0.59
560	-	-	-	-	-	-	3.60	1.36	2.65	-	-	-	3.60	1.36	2.65
562	-	-	-	-	-	-	50.20	10.88	4.61	1.70	0.68	2.50	51.90	11.56	4.49
563	-	-	-	-	-	-	1.44	0.68	2.12	-	-	-	1.44	0.68	2.12
564	-	-	-	-	-	-	2.65	0.68	3.90	-	-	-	2.65	0.68	3.90
571	-	-	-	-	-	-	21.72	8.44	2.57	-	-	-	21.72	8.44	2.57
572	2.07	0.68	3.05	-	-	-	-	-	-	2.01	0.68	2.96	4.08	1.36	3.00
Total	138.30	111.76	1.24	1,549.08	493.68	3.14	2,300.06	636.12	3.62	418.15	246.52	1.70	4,405.59	1,488.08	2.96

Appendix table 3.--Total catch (Y), standard effective trip (f), and catch per standard effective trip (Y/f) according to statistical areas, by quarters of the year, 1950

Area	First quarter			Second quarter			Third quarter			Fourth quarter			Annual		
	Y	f	Y/f	Y	f	Y/f	Y	f	Y/f	Y	f	Y/f	Y	f	Y/f
	Metric tons	Number	Metric tons	Metric tons	Number	Metric tons	Metric tons	Number	Metric tons	Metric tons	Number	Metric tons	Metric tons	Number	Metric tons
120	6.28	2.13	2.95	22.62	3.55	6.37	-	-	-	4.96	2.13	2.33	33.86	7.81	4.34
121	11.08	4.84	2.29	18.70	6.26	2.99	-	-	-	25.99	6.13	4.24	55.77	17.23	3.24
122	7.86	3.13	2.51	22.31	5.42	4.12	13.67	4.42	3.09	54.56	15.10	3.61	98.40	28.07	3.50
123	-	-	-	6.42	1.00	6.42	9.04	1.42	6.37	-	-	-	15.46	2.42	6.39
125	15.42	18.39	0.84	128.35	70.11	1.88	124.91	52.43	2.38	34.49	22.65	1.52	303.17	163.58	1.85
126	5.08	9.71	0.52	15.12	18.68	0.81	34.64	18.81	1.84	10.44	7.13	1.46	65.28	54.33	1.20
127	2.56	1.71	1.49	2.07	0.71	2.92	-	-	-	-	-	-	4.63	2.42	1.91
128	2.77	0.71	3.90	1.13	1.42	0.80	-	-	-	9.19	2.84	3.24	13.09	4.97	2.63
188	-	-	-	-	-	-	-	-	-	3.20	0.71	4.51	3.20	0.71	4.51
196	-	-	-	-	-	-	-	-	-	9.17	2.13	4.31	9.17	2.13	4.31

Appendix table 3.--Total catch (Y), standard effective trip (f), and catch per standard effective trip (Y/f) according to statistical areas, by quarters of the year, 1950--Continued

Area	First quarter			Second quarter			Third quarter			Fourth quarter			Annual		
	Y	f	Y/f	Y	f	Y/f	Y	f	Y/f	Y	f	Y/f	Y	f	Y/f
	Metric tons	Number	Metric tons	Metric tons	Number	Metric tons	Metric tons	Number	Metric tons	Metric tons	Number	Metric tons	Metric tons	Number	Metric tons
197	-	-	-	-	-	-	5.71	0.71	8.04	-	-	-	5.71	0.71	8.04
320	0.46	0.71	0.65	1.79	0.71	2.52	12.97	7.42	1.75	-	-	-	15.22	8.84	1.72
321	-	-	-	2.65	2.42	1.10	7.52	2.42	3.11	-	-	-	10.17	4.84	2.10
322	-	-	-	6.33	2.13	2.97	7.87	2.71	2.90	13.56	5.00	2.71	27.76	9.84	2.82
323	-	-	-	45.52	12.78	3.56	68.87	21.91	3.14	-	-	-	114.39	34.69	3.30
324	-	-	-	12.45	7.26	1.72	57.98	12.39	4.68	-	-	-	70.43	19.65	3.58
325	-	-	-	4.03	2.84	1.42	1.61	1.71	0.94	10.84	2.84	3.82	16.48	7.39	2.23
326	3.94	2.84	1.39	6.27	3.84	1.63	14.13	4.26	3.32	7.09	2.84	2.49	31.43	13.78	2.28
327	10.46	9.55	1.10	4.28	4.13	1.04	74.63	23.78	3.14	47.74	17.68	2.70	137.11	55.14	2.49
328	18.38	21.26	0.86	23.76	16.71	1.42	28.17	16.36	1.72	52.75	26.52	1.99	123.06	80.85	1.52
331	18.11	24.07	0.75	6.20	6.84	0.91	29.81	12.68	2.35	10.48	4.97	2.11	64.60	48.56	1.33
332	0.16	0.71	0.23	25.07	13.71	1.83	18.01	6.13	2.94	13.02	4.13	3.15	56.26	24.68	2.28
333	0.97	2.13	0.46	0.57	2.00	0.29	2.88	1.71	1.69	1.23	1.71	0.72	5.65	7.55	0.75
340	-	-	-	-	-	-	1.47	0.71	2.06	-	-	-	1.47	0.71	2.06
342	-	-	-	-	-	-	1.95	0.71	2.75	-	-	-	1.95	0.71	2.75
346	-	-	-	-	-	-	1.80	0.71	2.53	4.21	1.42	2.96	6.01	2.13	2.82
348	-	-	-	-	-	-	-	-	-	0.94	0.71	1.32	0.94	0.71	1.32
349	-	-	-	-	-	-	3.29	0.71	4.63	8.53	2.84	3.00	11.82	3.55	3.33
350	-	-	-	1.28	0.71	1.80	3.28	1.71	1.92	5.45	2.13	2.56	10.01	4.55	2.20
351	-	-	-	-	-	-	-	-	-	3.85	2.13	1.81	3.85	2.13	1.81
352	-	-	-	-	-	-	24.13	7.81	3.09	-	-	-	24.13	7.81	3.09
353	-	-	-	-	-	-	9.41	2.13	4.42	-	-	-	9.41	2.13	4.42
360	-	-	-	0.84	0.71	1.18	1.27	1.00	1.27	-	-	-	2.11	1.71	1.23
420	6.07	6.84	0.89	18.66	14.55	1.28	18.87	5.97	3.16	25.05	14.23	1.76	68.65	41.59	1.65
421	0.82	3.84	0.21	4.75	4.13	1.15	75.30	12.36	6.09	27.59	8.10	3.41	108.46	28.43	3.81
422	1.16	3.00	0.39	32.79	22.75	1.44	191.04	51.22	3.73	23.85	8.97	2.66	248.84	85.94	2.90
423	50.16	81.44	0.62	265.07	210.15	1.26	349.93	105.47	3.32	123.04	66.37	1.85	788.20	463.43	1.70
424	11.49	12.39	0.93	35.60	17.68	2.01	37.94	10.68	3.55	13.01	3.55	3.66	98.04	44.30	2.21
425	4.47	6.26	0.71	60.97	27.94	2.18	162.46	45.78	3.55	16.82	8.55	1.97	244.72	88.53	2.76
426	5.40	2.84	1.90	86.73	33.49	2.59	106.61	28.20	3.78	54.34	16.78	3.24	253.08	81.31	3.11
427	7.71	7.10	1.09	38.46	19.07	2.02	54.70	18.62	2.94	19.20	13.78	1.39	120.07	58.57	2.05
428	10.31	10.10	1.02	40.19	16.94	2.37	30.88	10.23	3.02	25.91	6.97	3.72	107.29	44.24	2.42
429	4.73	8.39	0.56	6.12	5.84	1.05	1.27	0.71	1.79	6.64	4.13	1.61	18.76	19.07	0.98
440	-	-	-	-	-	-	18.43	3.55	5.19	-	-	-	18.43	3.55	5.19
441	-	-	-	-	-	-	2.22	0.71	3.13	-	-	-	2.22	0.71	3.13
442	-	-	-	-	-	-	5.69	0.71	8.01	-	-	-	5.69	0.71	8.01
445	-	-	-	-	-	-	1.55	0.71	2.19	-	-	-	1.55	0.71	2.19
446	-	-	-	-	-	-	4.98	0.71	7.02	-	-	-	4.98	0.71	7.02
447	-	-	-	-	-	-	1.97	0.71	2.77	-	-	-	1.97	0.71	2.77
448	-	-	-	-	-	-	7.71	1.00	7.71	-	-	-	7.71	1.00	7.71
449	-	-	-	-	-	-	19.17	5.42	3.54	-	-	-	19.17	5.42	3.54
450	-	-	-	-	-	-	1.17	0.71	1.64	-	-	-	1.17	0.71	1.64
451	-	-	-	-	-	-	18.76	6.26	3.00	1.50	0.71	2.11	20.26	6.97	2.91
452	-	-	-	1.17	2.42	0.48	25.16	13.13	1.92	4.50	2.84	1.58	30.83	18.39	1.68
453	-	-	-	-	-	-	70.96	17.65	4.02	7.16	2.84	2.52	78.12	20.49	3.81
454	-	-	-	-	-	-	47.43	8.10	5.86	-	-	-	47.43	8.10	5.86
455	7.43	6.39	1.16	18.64	7.81	2.39	113.08	27.62	4.09	3.40	1.71	1.99	142.55	43.53	3.27
456	-	-	-	10.50	3.00	3.50	41.98	10.00	4.20	-	-	-	52.48	13.00	4.04
457	-	-	-	6.48	1.42	4.56	8.28	2.13	3.89	0.48	0.71	0.67	15.24	4.26	3.58
460	-	-	-	-	-	-	2.16	1.42	1.52	-	-	-	2.16	1.42	1.52
461	-	-	-	-	-	-	48.13	7.13	6.75	-	-	-	48.13	7.13	6.75
462	-	-	-	3.74	1.00	3.74	37.16	8.00	4.64	-	-	-	40.90	9.00	4.54
520	0.61	0.71	0.85	1.04	0.71	1.47	2.45	3.71	0.66	83.83	16.97	4.94	87.93	22.10	3.98
521	6.15	5.13	1.20	0.12	1.00	0.12	2.00	1.71	1.17	52.67	12.13	4.34	60.94	19.97	3.05
522	-	-	-	-	-	-	-	-	-	10.66	1.00	10.66	10.66	1.00	10.66
523	-	-	-	-	-	-	-	-	-	13.04	2.84	4.59	13.04	2.84	4.59
524	-	-	-	10.22	2.13	4.80	-	-	-	9.09	1.71	5.31	19.31	3.84	5.03
525	4.95	2.84	1.74	-	-	-	7.68	1.42	5.41	17.80	3.71	4.80	30.43	7.97	3.82
526	5.87	2.13	2.76	1.09	1.00	1.09	-	-	-	8.60	1.71	5.03	15.56	4.84	3.21
527	-	-	-	-	-	-	-	-	-	3.82	1.42	2.69	3.82	1.42	2.69

Appendix table 3.--Total catch (Y), standard effective trip (f), and catch per standard effective trip (Y/f) according to statistical areas, by quarters of the year, 1950--Continued

Area	First quarter			Second quarter			Third quarter			Fourth quarter			Annual		
	Y	f	Y/f	Y	f	Y/f	Y	f	Y/f	Y	f	Y/f	Y	f	Y/f
	Metric tons	Number	Metric tons	Metric tons	Number	Metric tons	Metric tons	Number	Metric tons	Metric tons	Number	Metric tons	Metric tons	Number	Metric tons
546	-	-	-	-	-	-	1.81	0.71	2.55	-	-	-	1.81	0.71	2.55
556	-	-	-	-	-	-	-	-	-	21.14	3.00	7.05	21.14	3.00	7.05
557	-	-	-	-	-	-	-	-	-	21.58	2.00	10.79	21.58	2.00	10.79
560	-	-	-	-	-	-	6.48	1.00	6.48	2.53	1.42	1.78	9.01	2.42	3.72
561	-	-	-	-	-	-	42.87	7.13	6.01	-	-	-	42.87	7.13	6.01
562	-	-	-	-	-	-	39.76	11.10	3.58	0.28	0.71	0.39	40.04	11.81	3.39
563	-	-	-	-	-	-	7.43	2.00	3.72	-	-	-	7.43	2.00	3.72
564	-	-	-	-	-	-	-	-	-	0.28	0.71	0.39	0.28	0.71	0.39
571	3.26	1.71	1.91	2.82	2.13	1.33	50.21	11.00	4.56	4.28	0.71	6.02	60.57	15.55	3.90
572	-	-	-	-	-	-	2.12	1.42	1.49	-	-	-	2.12	1.42	1.49
575	-	-	-	-	-	-	-	-	-	5.42	1.00	5.42	5.42	1.00	5.42
578	-	-	-	-	-	-	-	-	-	7.92	1.00	7.92	7.92	1.00	7.92
Total	234.12	263.00	0.89	1,002.92	579.10	1.73	2,226.82	652.87	3.41	947.12	346.02	2.74	4,410.98	1,840.99	2.40

Appendix table 4.--Total catch (Y), standard effective trip (f), and catch per standard effective trip (Y/f) according to statistical areas, by quarters of the year, 1951

Area	First quarter			Second quarter			Third quarter			Fourth quarter			Annual		
	Y	f	Y/f	Y	f	Y/f	Y	f	Y/f	Y	f	Y/f	Y	f	Y/f
	Metric tons	Number	Metric tons	Metric tons	Number	Metric tons	Metric tons	Number	Metric tons	Metric tons	Number	Metric tons	Metric tons	Number	Metric tons
120	4.41	2.00	2.20	-	-	-	-	-	-	-	-	-	4.41	2.00	2.20
121	2.51	1.73	1.45	90.61	17.11	5.30	-	-	-	0.51	1.00	0.51	93.63	19.84	4.72
122	0.77	0.73	1.06	89.52	22.68	3.95	-	-	-	8.22	6.00	1.37	98.51	29.41	3.35
123	0.15	0.73	0.20	44.92	11.84	3.79	-	-	-	-	-	-	45.07	12.57	3.58
124	-	-	-	5.81	1.00	5.81	-	-	-	10.38	2.00	5.19	16.19	3.00	5.40
125	12.74	17.30	0.74	97.73	46.98	2.08	112.59	49.90	2.26	29.76	22.95	1.30	252.82	137.13	1.84
126	2.97	5.92	0.50	52.18	20.49	2.55	70.55	25.49	2.77	12.30	11.92	1.03	138.00	63.82	2.16
127	-	-	-	-	-	-	4.49	1.46	3.08	1.49	0.73	2.05	5.98	2.19	2.73
128	-	-	-	-	-	-	3.46	3.46	1.00	-	-	-	3.46	3.46	1.00
196	-	-	-	10.05	2.46	4.08	-	-	-	-	-	-	10.05	2.46	4.08
248	-	-	-	18.22	3.46	5.27	12.99	2.92	4.45	-	-	-	31.21	6.38	4.89
249	-	-	-	2.85	1.00	2.85	4.89	0.73	6.69	-	-	-	7.74	1.73	4.47
320	-	-	-	1.13	1.00	1.13	3.76	2.00	1.88	-	-	-	4.89	3.00	1.63
321	0.11	1.00	0.11	55.27	12.00	4.61	1.57	1.00	1.57	1.02	1.46	0.70	57.97	15.46	3.75
322	0.68	1.00	0.68	7.41	2.73	2.71	73.81	12.00	6.15	1.30	1.00	1.30	83.20	16.73	4.97
323	0.11	1.00	0.11	13.56	6.00	2.26	14.94	4.73	3.16	-	-	-	28.61	11.73	2.44
324	0.77	1.00	0.77	21.86	5.38	4.06	-	-	-	-	-	-	22.63	6.38	3.55
325	1.30	1.73	0.75	7.72	2.92	2.64	2.38	1.00	2.38	-	-	-	11.40	5.65	2.02
326	7.40	5.65	1.31	-	-	-	11.73	7.00	1.68	0.13	0.73	0.18	19.26	13.38	1.44
327	8.53	4.92	1.73	9.90	8.00	1.24	23.45	11.46	2.05	7.58	5.00	1.52	49.46	29.38	1.68
328	3.30	7.65	0.43	92.21	30.65	3.01	57.11	22.95	2.49	36.30	24.95	1.45	188.92	86.20	2.19
331	19.03	18.11	1.05	131.89	47.20	2.79	111.61	18.98	5.88	21.00	12.84	1.64	283.53	97.13	2.92
332	2.58	3.46	0.75	4.11	4.92	0.84	13.63	3.46	3.94	19.43	14.92	1.30	39.75	26.76	1.48
333	7.49	7.73	0.97	3.95	2.00	1.98	8.33	1.00	8.33	2.27	1.00	2.27	22.04	11.73	1.88
345	-	-	-	-	-	-	-	-	-	5.92	1.73	3.42	5.92	1.73	3.42
346	-	-	-	10.25	1.73	5.92	29.55	5.92	4.99	3.19	2.73	1.17	42.99	10.38	4.14
347	-	-	-	2.98	1.46	2.04	19.84	7.65	2.59	3.51	3.19	1.10	26.33	12.30	2.14
348	-	-	-	22.37	5.65	3.96	-	-	-	-	-	-	22.37	5.65	3.96
349	1.72	3.19	0.54	17.81	4.92	3.62	46.13	14.68	3.14	8.43	4.65	1.81	74.09	27.44	2.70
350	-	-	-	50.93	10.49	4.85	83.91	18.87	4.45	30.42	13.03	2.33	165.26	42.39	3.90
351	0.73	1.73	0.42	77.82	18.46	4.22	34.04	7.19	4.73	14.27	7.84	1.82	126.86	35.22	3.60
352	-	-	-	17.23	4.19	4.11	9.48	2.19	4.33	7.30	7.65	0.95	34.01	14.03	2.42
353	-	-	-	5.41	3.00	1.80	14.16	2.92	4.85	7.87	6.11	1.29	27.44	12.03	2.28
355	-	-	-	-	-	-	-	-	-	12.88	5.65	2.28	12.88	5.65	2.28
356	-	-	-	-	-	-	-	-	-	1.23	0.73	1.69	1.23	0.73	1.69

Appendix table 4.--Total catch (Y), standard effective trip (f), and catch per standard effective trip (Y/f) according to statistical areas, by quarters of the year, 1951--Continued

Area	First quarter			Second quarter			Third quarter			Fourth quarter			Annual		
	Y	f	Y/f	Y	f	Y/f	Y	f	Y/f	Y	f	Y/f	Y	f	Y/f
	Metric tons	Number	Metric tons	Metric tons	Number	Metric tons	Metric tons	Number	Metric tons	Metric tons	Number	Metric tons	Metric tons	Number	Metric tons
357	-	-	-	6.96	1.46	4.77	3.68	0.73	5.04	-	-	-	10.64	2.19	4.86
358	-	-	-	15.82	4.65	3.40	8.05	2.92	2.76	-	-	-	23.87	7.57	3.15
359	-	-	-	12.20	2.92	4.18	6.18	1.46	4.23	-	-	-	18.38	4.38	4.20
361	-	-	-	22.80	4.00	5.72	4.60	0.73	6.31	-	-	-	27.40	4.73	5.79
362	0.17	0.73	0.23	-	-	-	-	-	-	-	-	-	0.17	0.73	0.23
420	6.43	8.11	0.79	98.77	27.76	3.56	3.96	3.46	1.14	2.51	1.46	1.72	111.67	40.79	2.74
421	-	-	-	5.67	5.11	1.11	21.99	9.11	2.41	2.50	2.46	1.02	30.16	16.68	1.81
422	-	-	-	81.00	19.46	4.16	129.54	27.92	4.64	2.44	1.00	2.44	212.98	48.38	4.40
423	6.78	10.03	0.68	155.96	64.34	2.42	377.00	83.88	4.49	23.80	18.57	1.28	563.54	176.82	3.19
424	-	-	-	42.88	12.19	3.52	73.82	16.38	4.51	5.53	3.46	1.60	122.23	32.03	3.82
425	-	-	-	153.73	31.25	4.92	103.32	20.11	5.14	9.43	4.92	1.92	266.48	56.28	4.73
426	0.33	1.46	0.23	65.83	16.38	4.02	56.67	12.38	4.58	7.73	2.73	2.83	130.56	32.95	3.96
427	2.05	3.92	0.52	28.96	8.46	3.42	37.96	11.57	3.28	7.67	4.38	1.75	76.64	28.33	2.70
428	2.06	1.46	1.41	15.60	6.65	2.35	16.29	3.92	4.16	11.87	5.65	2.10	45.82	17.68	2.59
429	5.29	4.38	1.21	30.87	13.14	2.35	28.76	5.38	5.35	2.91	3.92	0.74	67.83	26.82	2.53
441	-	-	-	-	-	-	5.64	0.73	7.73	-	-	-	5.64	0.73	7.73
442	-	-	-	-	-	-	8.28	1.46	5.67	-	-	-	8.28	1.46	5.67
443	-	-	-	12.19	3.65	3.34	1.56	1.00	1.56	1.67	0.73	2.28	15.42	5.38	2.87
444	-	-	-	11.98	4.73	2.53	22.62	2.19	10.33	-	-	-	34.60	6.92	5.00
445	-	-	-	18.43	1.00	18.43	23.24	3.65	6.37	-	-	-	41.67	4.65	8.96
447	-	-	-	18.18	2.73	6.66	-	-	-	-	-	-	18.18	2.73	6.66
448	-	-	-	9.41	2.92	3.22	7.99	3.46	2.31	-	-	-	17.40	6.38	2.73
449	-	-	-	15.24	4.92	3.10	3.98	1.73	2.30	-	-	-	19.22	6.65	2.89
450	0.28	0.73	0.39	0.22	0.73	0.30	17.19	5.65	3.04	1.96	0.73	2.68	19.65	7.84	2.51
451	-	-	-	6.98	3.19	2.19	109.17	21.65	5.04	-	-	-	116.15	24.84	4.68
452	0.22	2.19	0.10	68.80	22.65	3.04	46.96	12.46	3.77	5.43	3.00	1.81	121.41	40.30	3.01
453	-	-	-	23.37	9.00	2.60	264.79	50.03	5.29	1.76	0.73	2.41	289.92	59.76	4.85
454	-	-	-	58.66	10.49	5.59	62.30	13.38	4.66	-	-	-	120.96	23.87	5.07
455	-	-	-	71.06	23.76	2.99	116.47	26.95	4.32	-	-	-	187.53	50.71	3.70
456	-	-	-	10.12	2.19	4.62	50.80	7.92	6.41	-	-	-	60.92	10.11	6.02
457	-	-	-	20.82	3.92	5.31	43.54	9.03	4.82	0.91	0.73	1.25	65.27	13.68	4.77
458	-	-	-	-	-	-	19.68	3.65	5.39	-	-	-	19.68	3.65	5.39
459	0.28	0.73	0.38	6.66	1.00	6.66	32.89	6.57	5.01	-	-	-	39.83	8.30	4.80
460	-	-	-	3.16	1.46	2.16	27.39	5.84	4.69	2.23	1.46	1.53	32.78	8.76	3.74
461	-	-	-	25.73	4.73	5.44	63.70	11.46	5.56	-	-	-	89.43	16.19	5.52
462	-	-	-	-	-	-	26.33	3.92	6.72	-	-	-	26.33	3.92	6.72
463	-	-	-	-	-	-	12.26	1.46	8.39	-	-	-	12.26	1.46	8.39
464	-	-	-	-	-	-	2.70	0.73	3.70	-	-	-	2.70	0.73	3.70
465	-	-	-	-	-	-	12.59	1.73	7.28	-	-	-	12.59	1.73	7.28
470	-	-	-	-	-	-	2.28	0.73	3.12	-	-	-	2.28	0.73	3.12
520	-	-	-	6.48	1.46	4.44	-	-	-	-	-	-	6.48	1.46	4.44
521	1.85	2.46	0.75	1.14	0.73	1.56	6.76	4.00	1.69	6.26	2.00	3.13	16.01	9.19	1.74
522	0.57	1.00	0.57	-	-	-	16.36	4.00	4.09	0.68	1.00	0.68	17.61	6.00	2.94
523	-	-	-	2.27	0.73	3.11	7.33	3.00	2.44	-	-	-	9.60	3.73	2.57
525	4.94	3.00	1.65	-	-	-	-	-	-	-	-	-	4.94	3.00	1.65
526	3.25	2.46	1.32	-	-	-	-	-	-	10.25	5.73	1.79	13.50	8.19	1.65
527	0.74	0.73	1.02	-	-	-	-	-	-	2.04	1.00	2.04	2.78	1.73	1.61
528	2.91	1.46	1.99	-	-	-	-	-	-	-	-	-	2.91	1.46	1.99
546	-	-	-	1.84	1.00	1.84	-	-	-	-	-	-	1.84	1.00	1.84
547	-	-	-	-	-	-	24.76	3.46	7.16	-	-	-	24.76	3.46	7.16
548	-	-	-	9.38	1.00	9.38	17.35	3.00	5.78	-	-	-	26.73	4.00	6.68
560	-	-	-	43.50	3.19	13.64	29.09	5.46	5.33	-	-	-	72.59	8.65	8.39
561	-	-	-	32.28	6.57	4.91	83.53	12.76	6.55	-	-	-	115.81	19.33	5.99
562	-	-	-	26.09	8.38	3.11	8.08	2.73	2.96	3.09	3.00	1.03	37.26	14.11	2.64
563	-	-	-	1.07	0.73	1.47	6.73	0.73	9.22	-	-	-	7.80	1.46	5.34
571	-	-	-	60.30	9.11	6.62	16.97	4.19	4.05	1.33	2.00	0.66	78.60	15.30	5.14
572	-	-	-	-	-	-	12.10	1.46	8.29	-	-	-	12.10	1.46	8.29
573	1.99	0.73	2.72	-	-	-	-	-	-	3.46	1.00	3.46	5.45	1.73	3.15
583	-	-	-	-	-	-	3.25	1.00	3.25	-	-	-	3.25	1.00	3.25
Total	117.44	132.16	0.89	2,268.11	653.46	3.47	2,856.88	672.08	4.25	364.17	231.47	1.57	5,606.60	1,689.17	3.32

Appendix table 5.--Total catch (Y), standard effective trip (f), and catch per standard effective trip (Y/f) according to statistical areas, by quarters of the year, 1952

Area	First quarter			Second quarter			Third quarter			Fourth quarter			Annual		
	Y	f	Y/f	Y	f	Y/f	Y	f	Y/f	Y	f	Y/f	Y	f	Y/f
	Metric tons	Number	Metric tons	Metric tons	Number	Metric tons	Metric tons	Number	Metric tons	Metric tons	Number	Metric tons	Metric tons	Number	Metric tons
120	-	-	-	2.49	1.00	2.49	32.37	2.00	16.18	-	-	-	34.86	3.00	11.62
121	-	-	-	4.66	1.00	4.66	14.56	2.00	7.28	17.96	6.48	2.77	37.18	9.48	3.92
122	0.66	1.00	0.66	-	-	-	6.09	1.00	6.09	-	-	-	6.75	2.00	3.38
125	16.11	15.70	1.03	112.86	68.38	1.65	129.02	57.16	2.26	25.18	19.10	1.32	283.17	160.34	1.77
126	1.27	2.48	0.51	7.13	4.48	1.59	64.34	29.88	2.15	3.97	1.74	2.28	76.71	38.58	1.99
128	-	-	-	-	-	-	-	-	-	0.04	0.74	0.06	0.04	0.74	0.06
185	-	-	-	-	-	-	-	-	-	12.17	2.00	6.08	12.17	2.00	6.08
320	-	-	-	-	-	-	5.37	1.00	5.37	-	-	-	5.37	1.00	5.37
322	-	-	-	12.96	18.00	0.72	-	-	-	1.70	1.00	1.70	14.66	19.00	0.77
323	0.73	1.48	0.50	0.38	0.74	0.51	28.45	5.44	5.23	1.43	1.00	1.43	30.99	8.66	3.58
324	-	-	-	-	-	-	5.02	1.00	5.02	-	-	-	5.02	1.00	5.02
326	-	-	-	7.54	3.00	2.51	38.52	4.74	8.13	-	-	-	46.06	7.74	5.95
327	-	-	-	0.54	1.00	0.54	4.65	1.00	4.65	2.36	1.00	2.36	7.55	3.00	2.52
328	9.10	20.40	0.45	58.58	46.32	1.26	74.67	30.24	2.47	64.47	56.64	1.14	206.82	153.60	1.35
331	8.79	11.18	0.79	97.48	54.20	1.80	123.73	40.38	3.06	10.84	9.92	1.09	240.84	115.68	2.08
332	0.46	0.74	0.63	4.77	3.70	1.29	5.36	3.70	1.45	28.55	13.44	2.12	39.14	21.58	1.81
333	-	-	-	1.16	0.74	1.56	1.54	1.00	1.54	8.53	3.22	2.65	11.23	4.96	2.26
346	-	-	-	-	-	-	10.24	0.74	13.84	-	-	-	10.24	0.74	13.84
349	-	-	-	3.64	3.22	1.13	19.40	15.32	1.27	2.93	1.00	2.93	25.97	19.54	1.33
350	3.25	3.22	1.01	13.08	11.66	1.12	46.47	16.10	2.89	8.82	5.96	1.48	71.62	36.94	1.94
351	2.84	3.22	0.88	23.68	17.84	1.33	72.40	24.88	2.91	16.82	15.14	1.11	115.74	61.08	1.89
352	-	-	-	2.24	3.48	0.64	17.66	7.44	2.37	8.30	5.48	1.51	28.20	16.40	1.72
353	-	-	-	0.43	1.00	0.43	11.21	4.48	2.50	0.90	1.74	0.52	12.54	7.22	1.74
420	1.57	3.70	0.42	1.27	3.48	0.37	7.91	2.48	3.19	3.49	2.74	1.27	14.24	12.40	1.15
421	0.89	1.74	0.51	10.20	6.92	1.47	28.29	7.70	3.67	3.71	4.70	0.79	43.09	21.06	2.05
422	-	-	-	11.13	14.40	0.77	69.87	26.10	2.68	7.49	3.70	2.03	88.49	44.20	2.00
423	5.97	9.62	0.62	58.15	47.82	1.22	167.33	89.54	1.87	10.38	7.96	1.30	241.83	154.94	1.56
424	1.88	1.48	1.27	40.91	22.36	1.83	21.16	9.66	2.19	4.22	4.00	1.06	68.17	37.50	1.82
425	-	-	-	31.21	9.22	3.39	43.36	13.88	3.12	0.35	1.00	0.35	74.92	24.10	3.11
426	-	-	-	26.04	9.92	2.62	15.84	6.44	2.46	-	-	-	41.88	16.36	2.56
427	-	-	-	11.48	8.70	1.32	4.02	2.96	1.36	26.41	9.70	2.72	41.91	21.36	1.96
428	1.14	0.74	1.54	6.89	4.74	1.45	8.29	2.48	3.34	13.61	10.44	1.30	29.93	18.40	1.63
429	0.13	1.00	0.13	9.55	7.44	1.28	31.20	13.44	2.32	4.00	4.22	0.95	44.88	26.10	1.72
443	-	-	-	-	-	-	17.85	3.70	4.83	-	-	-	17.85	3.70	4.83
444	-	-	-	-	-	-	8.01	1.48	5.41	-	-	-	8.01	1.48	5.41
445	1.41	1.48	0.95	-	-	-	-	-	-	-	-	-	1.41	1.48	0.95
449	-	-	-	-	-	-	0.82	1.00	0.82	-	-	-	0.82	1.00	0.82
450	-	-	-	0.70	1.48	0.47	7.10	2.00	3.55	-	-	-	7.80	3.48	2.24
451	-	-	-	1.29	2.48	0.52	34.71	9.92	3.50	-	-	-	36.00	12.40	2.90
452	3.04	3.74	0.81	22.89	14.62	1.57	103.78	19.92	5.21	1.32	1.48	0.89	131.03	39.76	3.30
453	-	-	-	1.27	2.00	0.64	44.28	12.92	3.43	-	-	-	45.55	14.92	3.05
454	-	-	-	1.18	1.74	0.68	6.34	5.48	1.16	-	-	-	7.52	7.22	1.04
455	-	-	-	5.55	2.96	1.88	20.53	5.48	3.75	-	-	-	26.08	8.44	3.09
456	-	-	-	19.43	7.66	2.54	7.21	2.48	2.91	-	-	-	26.64	10.14	2.63
457	-	-	-	3.95	2.22	1.78	-	-	-	-	-	-	3.95	2.22	1.78
460	-	-	-	7.30	2.22	3.29	0.45	1.00	0.45	-	-	-	7.75	3.22	2.41
520	1.55	1.00	1.55	9.42	5.74	1.64	12.11	2.22	5.45	-	-	-	23.08	8.96	2.58
521	0.24	0.74	0.32	21.15	5.70	3.71	6.12	2.74	2.23	7.17	3.48	2.06	34.68	12.66	2.74
522	1.37	0.74	1.86	-	-	-	33.69	5.48	6.15	11.81	2.96	3.99	46.87	9.18	5.10
523	-	-	-	-	-	-	98.82	11.62	8.50	8.56	3.70	2.31	107.38	15.32	7.01
524	3.12	1.48	2.11	5.94	3.00	1.98	12.90	5.74	2.25	14.55	7.66	1.90	36.51	17.88	2.04
525	-	-	-	21.83	10.00	2.18	23.33	2.48	9.41	5.31	4.00	1.33	50.47	16.48	3.06
526	1.42	1.74	0.81	1.00	1.00	1.00	82.09	15.00	5.47	13.23	7.22	1.83	97.74	24.96	3.92
527	0.74	0.74	1.00	15.34	5.74	2.67	0.61	0.74	0.82	0.19	1.00	0.19	16.88	8.22	2.05
528	-	-	-	7.70	0.74	10.40	-	-	-	-	-	-	7.70	0.74	10.40
560	-	-	-	-	-	-	11.56	3.74	3.09	-	-	-	11.56	3.74	3.09
561	-	-	-	0.22	1.00	0.22	27.84	5.70	4.88	-	-	-	28.06	6.70	4.19
562	-	-	-	3.04	1.00	3.04	1.35	0.74	1.83	-	-	-	4.39	1.74	2.52
564	-	-	-	2.20	2.00	1.10	3.31	0.74	4.47	-	-	-	5.51	2.74	2.01
571	-	-	-	2.05	1.00	2.05	30.94	11.48	2.70	-	-	-	32.99	12.48	2.64

Appendix table 5.--Total catch (Y), standard effective trip (f), and catch per standard effective trip (Y/f) according to statistical areas, by quarters of the year, 1952--Continued

Area	First quarter			Second quarter			Third quarter			Fourth quarter			Annual		
	Y	f	Y/f	Y	f	Y/f	Y	f	Y/f	Y	f	Y/f	Y	f	Y/f
	Metric tons	Number	Metric tons	Metric tons	Number	Metric tons	Metric tons	Number	Metric tons	Metric tons	Number	Metric tons	Metric tons	Number	Metric tons
572	-	-	-	5.05	1.00	5.05	-	-	-	-	-	-	5.05	1.00	5.05
589	-	-	-	-	-	-	4.28	1.00	4.28	-	-	-	4.28	1.00	4.28
Total	67.68	89.36	0.76	718.95	450.06	1.60	1,708.37	558.98	3.06	350.77	225.56	1.56	2,845.77	1,323.96	2.15

Appendix table 6.--Total catch (Y), standard effective trip (f), and catch per standard effective trip (Y/f) according to statistical areas, by quarters of the year, 1953

Area	First quarter			Second quarter			Third quarter			Fourth quarter			Annual		
	Y	f	Y/f	Y	f	Y/f	Y	f	Y/f	Y	f	Y/f	Y	f	Y/f
	Metric tons	Number	Metric tons	Metric tons	Number	Metric tons	Metric tons	Number	Metric tons	Metric tons	Number	Metric tons	Metric tons	Number	Metric tons
121	-	-	-	-	-	-	22.52	7.16	3.14	3.67	1.00	3.67	26.19	8.16	3.21
122	3.36	3.72	0.90	6.49	2.00	3.25	58.66	12.44	4.72	35.26	7.00	5.04	103.77	25.16	4.12
123	6.94	3.00	2.31	-	-	-	-	-	-	-	-	-	6.94	3.00	2.31
124	-	-	-	-	-	-	10.12	5.44	1.86	6.28	0.86	7.30	16.40	6.30	2.60
125	24.16	43.06	0.56	172.95	84.12	2.06	214.92	78.12	2.75	44.19	35.60	1.24	456.22	240.90	1.89
126	2.29	1.86	1.23	33.48	15.44	2.17	44.54	16.88	2.64	20.17	13.88	1.45	100.48	48.06	2.09
248	-	-	-	2.27	1.00	2.27	-	-	-	-	-	-	2.27	1.00	2.27
321	1.09	0.86	1.26	-	-	-	-	-	-	-	-	-	1.09	0.86	1.26
322	-	-	-	17.67	1.00	17.67	-	-	-	-	-	-	17.67	1.00	17.67
323	-	-	-	4.54	3.00	1.51	30.33	18.00	1.68	-	-	-	34.87	21.00	1.66
326	14.47	3.44	4.21	-	-	-	-	-	-	-	-	-	14.47	3.44	4.21
327	15.25	4.30	3.55	-	-	-	4.48	1.00	4.48	0.74	1.00	0.74	20.47	6.30	3.25
328	181.30	102.32	1.77	96.12	49.38	1.95	91.42	46.24	1.98	85.84	43.48	1.97	454.68	241.42	1.88
331	65.85	40.22	1.64	58.14	22.78	2.55	84.26	29.32	2.87	50.54	28.76	1.76	258.79	121.08	2.14
332	19.87	20.46	0.97	47.00	8.30	5.66	9.02	5.86	1.54	21.81	10.16	2.15	97.70	44.78	2.18
333	-	-	-	23.51	5.00	4.70	2.03	3.00	0.68	-	-	-	25.54	8.00	3.19
342	-	-	-	-	-	-	-	-	-	6.82	1.00	6.82	6.82	1.00	6.82
345	-	-	-	-	-	-	-	-	-	7.22	1.72	4.20	7.22	1.72	4.20
346	-	-	-	-	-	-	-	-	-	13.41	2.58	5.20	13.41	2.58	5.20
350	1.01	1.00	1.01	10.53	6.30	1.67	3.38	1.86	1.82	1.10	0.86	1.28	16.02	10.02	1.60
351	36.27	26.06	1.39	90.35	25.46	3.55	28.28	14.74	1.92	37.59	26.48	1.42	192.49	92.74	2.08
352	-	-	-	3.54	0.86	4.11	-	-	-	-	-	-	3.54	0.86	4.11
353	-	-	-	2.34	0.86	2.72	-	-	-	-	-	-	2.34	0.86	2.72
359	-	-	-	-	-	-	1.30	0.86	1.51	-	-	-	1.30	0.86	1.51
360	-	-	-	17.10	2.86	5.98	9.23	2.00	4.62	-	-	-	26.33	4.86	5.42
361	-	-	-	5.16	1.72	3.00	-	-	-	2.70	0.86	3.14	7.86	2.58	3.05
372	-	-	-	-	-	-	8.57	0.86	9.97	-	-	-	8.57	0.86	9.97
420	5.46	2.58	2.12	20.02	11.02	1.82	41.78	10.72	3.90	7.95	3.44	2.31	75.21	27.76	2.71
421	-	-	-	20.05	7.58	2.65	27.25	16.02	1.70	9.70	9.74	1.00	57.00	33.34	1.71
422	-	-	-	104.68	44.04	2.38	98.88	38.90	2.54	12.62	11.30	1.12	216.18	94.24	2.29
423	0.89	1.72	0.52	125.16	78.16	1.60	201.62	87.46	2.30	66.58	39.80	1.67	394.25	207.14	1.90
424	0.12	0.86	0.14	32.40	10.58	3.06	69.03	23.34	2.96	50.82	27.74	1.83	152.37	62.52	2.44
425	-	-	-	116.80	28.20	4.14	70.35	21.62	3.25	12.22	5.30	2.31	199.37	55.12	3.62
426	-	-	-	88.33	17.46	5.06	36.72	15.04	2.44	0.21	0.86	0.24	125.26	33.36	3.75
427	-	-	-	120.86	29.90	4.04	35.84	15.60	2.30	1.24	2.86	0.43	157.94	48.36	3.26
428	3.22	6.88	0.47	33.39	11.02	3.03	6.96	4.86	1.43	9.37	8.44	1.11	52.94	31.20	1.70
429	3.46	4.58	0.76	-	-	-	1.28	2.00	0.64	6.48	6.86	0.94	11.22	13.44	0.83
440	-	-	-	-	-	-	-	-	-	0.62	0.86	0.73	0.62	0.86	0.73
442	-	-	-	-	-	-	0.87	0.86	1.01	5.33	2.00	2.67	6.20	2.86	2.17
443	0.85	0.86	0.99	0.75	0.86	0.87	5.54	3.00	1.85	8.99	3.72	2.42	16.13	8.44	1.91

Appendix table 6.--Total catch (Y), standard effective trip (f), and catch per standard effective trip (Y/f) according to statistical areas, by quarters of the year, 1953--Continued

Area	First quarter			Second quarter			Third quarter			Fourth quarter			Annual		
	Y	f	Y/f	Y	f	Y/f	Y	f	Y/f	Y	f	Y/f	Y	f	Y/f
	Metric tons	Number	Metric tons	Metric tons	Number	Metric tons	Metric tons	Number	Metric tons	Metric tons	Number	Metric tons	Metric tons	Number	Metric tons
444	-	-	-	9.12	1.72	5.30	9.81	3.00	3.27	1.59	0.86	1.85	20.52	5.58	3.68
445	-	-	-	1.78	0.86	2.07	-	-	-	-	-	-	1.78	0.86	2.07
446	-	-	-	-	-	-	7.44	3.00	2.48	-	-	-	7.44	3.00	2.48
447	-	-	-	-	-	-	2.13	2.00	1.07	-	-	-	2.13	2.00	1.07
448	-	-	-	-	-	-	3.58	1.00	3.58	-	-	-	3.58	1.00	3.58
449	-	-	-	-	-	-	-	-	-	5.38	0.86	6.25	5.38	0.86	6.25
450	-	-	-	28.07	11.16	2.51	44.54	8.16	5.46	6.98	1.86	3.75	79.59	21.18	3.76
451	0.62	0.86	0.72	71.10	20.90	3.40	120.65	30.90	3.90	12.33	8.30	1.49	204.70	60.96	3.36
452	3.68	4.44	0.83	87.17	23.20	3.76	52.51	14.30	3.67	20.08	6.72	2.99	163.44	48.66	3.36
453	-	-	-	35.34	15.46	2.29	92.90	24.90	3.73	8.95	3.44	2.60	137.19	43.80	3.13
454	-	-	-	22.60	5.16	4.38	32.27	11.74	2.75	4.61	1.00	4.61	59.48	17.90	3.32
455	2.27	0.86	2.64	51.65	18.62	2.77	89.83	21.90	4.10	31.36	8.30	3.78	175.11	49.68	3.52
456	-	-	-	4.72	2.00	2.36	40.55	9.60	4.22	2.48	1.00	2.48	47.75	12.60	3.79
457	-	-	-	32.69	10.30	3.17	22.34	5.72	3.91	0.69	0.86	0.80	55.72	16.88	3.30
460	-	-	-	9.88	3.44	2.87	21.60	4.72	4.58	13.72	3.86	3.55	45.20	12.02	3.76
461	-	-	-	12.80	2.86	4.48	9.88	1.72	5.75	4.30	1.72	2.50	26.98	6.30	4.28
462	-	-	-	-	-	-	4.55	0.86	5.30	3.56	1.86	1.91	8.11	2.72	2.98
464	-	-	-	-	-	-	-	-	-	18.15	1.00	18.15	18.15	1.00	18.15
520	-	-	-	0.35	0.86	0.40	-	-	-	4.42	2.86	1.55	4.77	3.72	1.28
521	6.55	3.72	1.76	-	-	-	3.82	0.86	4.44	2.92	3.00	0.97	13.29	7.58	1.75
522	2.95	1.86	1.59	-	-	-	-	-	-	-	-	-	2.95	1.86	1.59
523	0.87	0.86	1.01	-	-	-	-	-	-	-	-	-	0.87	0.86	1.01
524	-	-	-	-	-	-	8.86	2.72	3.26	-	-	-	8.86	2.72	3.26
525	6.44	4.86	1.32	-	-	-	-	-	-	6.66	2.00	3.33	13.10	6.86	1.91
526	9.62	7.58	1.27	-	-	-	19.51	2.86	6.82	13.11	3.58	3.66	42.24	14.02	3.01
527	-	-	-	2.24	0.86	2.60	-	-	-	-	-	-	2.24	0.86	2.60
528	1.36	0.86	1.58	-	-	-	-	-	-	-	-	-	1.36	0.86	1.58
558	-	-	-	1.55	1.00	1.55	-	-	-	-	-	-	1.55	1.00	1.55
560	-	-	-	-	-	-	28.82	3.00	9.61	-	-	-	28.82	3.00	9.61
561	-	-	-	4.08	3.00	1.36	57.16	14.02	4.08	2.27	1.00	2.27	63.51	18.02	3.52
562	-	-	-	11.65	6.58	1.77	77.69	13.44	5.78	-	-	-	89.34	20.02	4.46
563	-	-	-	0.40	1.00	0.40	11.75	5.86	2.00	-	-	-	12.15	6.86	1.77
571	-	-	-	-	-	-	46.93	8.74	5.37	-	-	-	46.93	8.74	5.37
Total	420.22	293.68	1.43	1,640.82	597.88	2.74	2,028.30	678.22	2.99	693.03	352.24	1.97	4,782,37	1,922.02	2.49

Appendix table 7.--Total catch (Y), standard effective trip (f), and catch per standard effective trip (Y/f) according to statistical areas, by quarters of the year, 1954

Area	First quarter			Second quarter			Third quarter			Fourth quarter			Annual		
	Y	f	Y/f	Y	f	Y/f	Y	f	Y/f	Y	f	Y/f	Y	f	Y/f
	Metric tons	Number	Metric tons	Metric tons	Number	Metric tons	Metric tons	Number	Metric tons	Metric tons	Number	Metric tons	Metric tons	Number	Metric tons
120	12.96	4.00	3.24	7.10	1.00	7.10	-	-	-	3.20	1.00	3.20	23.26	6.00	3.88
121	17.93	6.00	2.99	12.98	3.00	4.33	15.85	3.00	5.28	8.44	2.72	3.10	55.20	14.72	3.75
122	2.93	2.00	1.46	3.41	0.72	4.74	9.26	2.00	4.63	5.79	3.00	1.93	21.39	7.72	2.77
123	-	-	-	-	-	-	7.37	2.00	3.68	7.62	2.72	2.80	14.99	4.72	3.18
124	0.05	0.72	0.06	29.84	11.88	2.51	99.77	27.48	3.63	13.76	14.32	0.96	143.42	54.40	2.64
125	3.99	10.32	0.39	113.87	34.80	3.27	97.24	24.32	4.00	12.38	16.48	0.75	227.48	85.92	2.65
126	5.06	12.32	0.41	101.67	37.08	2.74	128.05	27.76	4.61	12.25	12.48	0.98	247.03	89.64	2.76
127	0.22	0.72	0.31	56.01	23.92	2.34	52.58	18.04	2.91	8.71	4.44	1.96	117.52	47.12	2.49
128	2.56	2.00	1.28	10.87	2.00	5.44	-	-	-	-	-	-	13.43	4.00	3.36
187	-	-	-	-	-	-	5.63	2.00	2.81	-	-	-	5.63	2.00	2.81

Appendix table 7.--Total catch (Y), standard effective trip (f), and catch per standard effective trip (Y/f) according to statistical areas, by quarters of the year, 1954--Continued

Area	First quarter			Second quarter			Third quarter			Fourth quarter			Annual		
	Y	f	Y/f	Y	f	Y/f	Y	f	Y/f	Y	f	Y/f	Y	f	Y/f
	Metric tons	Number	Metric tons	Metric tons	Number	Metric tons	Metric tons	Number	Metric tons	Metric tons	Number	Metric tons	Metric tons	Number	Metric tons
248	-	-	-	2.51	1.00	2.51	-	-	-	-	-	-	2.51	1.00	2.51
320	-	-	-	-	-	-	-	-	-	14.26	2.00	7.13	14.26	2.00	7.13
321	-	-	-	-	-	-	12.09	3.44	3.51	1.63	1.72	0.95	13.72	5.16	2.66
322	-	-	-	22.05	3.16	6.98	24.67	6.16	4.00	4.84	1.00	4.84	51.56	10.32	5.00
323	0.71	0.72	0.99	18.59	4.44	4.19	62.38	12.20	5.11	-	-	-	81.68	17.36	4.70
324	-	-	-	6.58	3.00	2.19	29.35	4.88	6.01	-	-	-	35.93	7.88	4.56
325	-	-	-	1.57	0.72	2.18	2.82	2.44	1.15	0.80	1.00	0.80	5.19	4.16	1.25
326	11.60	4.44	2.61	21.09	6.88	3.07	25.72	6.88	3.74	6.43	5.16	1.25	64.84	23.36	2.78
327	10.84	8.16	1.33	3.09	3.44	0.90	96.56	14.76	6.54	9.32	5.88	1.59	119.81	32.24	3.72
328	79.54	59.52	1.34	65.04	25.76	2.53	211.02	41.40	5.10	53.12	26.56	2.00	408.72	153.24	2.67
331	52.23	41.52	1.26	52.02	25.80	2.02	49.84	27.04	1.84	29.65	17.40	1.70	183.74	111.76	1.64
332	4.90	6.32	0.78	7.49	4.16	1.80	100.97	21.08	4.79	0.58	2.72	0.21	113.94	34.28	3.32
333	-	-	-	36.62	2.88	12.71	39.30	6.32	6.22	-	-	-	75.92	9.20	8.25
343	-	-	-	2.29	1.00	2.29	7.55	1.00	7.55	-	-	-	9.84	2.00	4.92
344	-	-	-	-	-	-	13.55	1.00	13.55	-	-	-	13.55	1.00	13.55
345	-	-	-	6.69	1.00	6.69	12.26	1.00	12.26	-	-	-	18.95	2.00	9.48
346	-	-	-	19.47	2.00	9.73	-	-	-	-	-	-	19.47	2.00	9.73
347	-	-	-	11.58	2.00	5.79	2.98	1.72	1.73	-	-	-	14.56	3.72	3.91
348	-	-	-	5.34	1.00	5.34	-	-	-	-	-	-	5.34	1.00	5.34
349	0.11	0.72	0.15	11.49	3.44	3.34	61.10	8.48	7.20	-	-	-	72.70	12.64	5.75
350	-	-	-	20.15	5.88	3.43	309.46	42.08	7.35	19.58	5.88	3.33	349.19	53.84	6.48
351	4.38	4.32	1.01	14.31	3.88	3.69	89.20	19.64	4.54	11.03	5.44	2.03	118.92	33.28	3.57
354	-	-	-	10.29	1.00	10.29	-	-	-	-	-	-	10.29	1.00	10.29
358	-	-	-	2.41	0.72	3.35	-	-	-	-	-	-	2.41	0.72	3.35
359	-	-	-	-	-	-	17.55	3.44	5.10	-	-	-	17.55	3.44	5.10
360	-	-	-	-	-	-	13.63	4.00	3.41	-	-	-	13.63	4.00	3.41
361	-	-	-	-	-	-	10.33	3.44	3.00	-	-	-	10.33	3.44	3.00
362	-	-	-	14.43	1.00	14.43	-	-	-	-	-	-	14.43	1.00	14.43
365	-	-	-	-	-	-	2.63	0.72	3.65	-	-	-	2.63	0.72	3.65
420	-	-	-	11.42	8.32	1.37	32.59	10.32	3.16	18.40	11.72	1.57	62.41	30.36	2.06
421	6.69	7.16	0.93	11.68	4.60	2.54	23.90	13.60	1.76	9.07	7.32	1.24	51.34	32.68	1.57
422	12.78	6.16	2.08	54.53	14.52	3.76	15.84	5.60	2.83	11.14	8.88	1.25	94.29	35.16	2.68
423	34.37	32.12	1.07	32.85	15.68	2.09	142.00	51.96	2.73	31.53	16.96	1.86	240.75	116.72	2.06
424	10.51	10.60	0.99	-	-	-	26.09	12.36	2.11	32.59	8.32	3.92	69.19	31.28	2.21
425	3.39	3.44	0.99	1.70	0.72	2.36	12.43	6.04	2.06	10.03	7.32	1.37	27.55	17.52	1.57
426	-	-	-	0.89	0.72	1.23	21.78	6.16	3.54	4.40	3.00	1.47	27.07	9.88	2.74
427	0.61	1.44	0.42	0.77	1.72	0.45	14.02	3.88	3.61	2.20	2.16	1.02	17.60	9.20	1.91
428	1.34	2.44	0.55	3.30	3.16	1.05	26.15	18.76	1.39	16.23	6.88	2.36	47.02	31.24	1.50
429	-	-	-	0.37	1.72	0.22	19.79	7.72	2.56	38.42	17.76	2.16	58.58	27.20	2.15
440	-	-	-	-	-	-	0.79	1.00	0.79	-	-	-	0.79	1.00	0.79
442	-	-	-	-	-	-	10.08	2.88	3.50	-	-	-	10.08	2.88	3.50
443	2.32	1.44	1.61	1.47	1.00	1.47	256.03	52.20	4.90	-	-	-	259.82	54.64	4.76
444	-	-	-	0.33	0.72	0.45	40.32	7.72	5.22	-	-	-	40.65	8.44	4.82
445	-	-	-	-	-	-	18.99	3.60	5.28	-	-	-	18.99	3.60	5.28
448	-	-	-	-	-	-	1.93	1.44	1.34	-	-	-	1.93	1.44	1.34
449	-	-	-	34.71	5.88	5.90	1.49	1.44	1.04	-	-	-	36.20	7.32	4.94
450	-	-	-	14.30	6.04	2.37	27.32	5.04	5.42	8.63	1.44	6.00	50.25	12.52	4.01
451	-	-	-	42.04	16.92	2.48	80.17	11.08	7.24	3.73	2.16	1.73	125.94	30.16	4.18
452	13.99	9.48	1.48	47.35	17.52	2.70	76.72	18.68	4.11	2.43	0.72	3.37	140.49	46.40	3.03
453	-	-	-	25.82	7.76	3.33	64.10	18.20	3.52	4.38	1.72	2.54	94.30	27.68	3.41
454	-	-	-	23.68	4.16	5.69	45.53	6.48	7.03	14.65	2.88	5.09	83.86	13.52	6.20
455	-	-	-	19.54	6.32	3.09	61.96	13.08	4.74	53.53	15.76	3.40	135.03	35.16	3.84
457	-	-	-	1.65	1.00	1.65	14.41	6.00	2.40	-	-	-	16.06	7.00	2.29
460	-	-	-	-	-	-	0.50	0.72	0.69	9.13	2.16	4.23	9.63	2.88	3.34
461	-	-	-	7.40	1.00	7.40	7.99	0.72	11.10	-	-	-	15.39	1.72	8.95
520	-	-	-	3.68	1.00	3.68	-	-	-	19.35	2.88	6.72	23.03	3.88	5.94
521	-	-	-	-	-	-	44.17	11.88	3.72	11.82	5.72	2.07	55.99	17.60	3.18
522	-	-	-	9.05	0.72	12.57	5.38	4.00	1.35	22.11	7.00	3.16	36.54	11.72	3.12
523	-	-	-	-	-	-	5.30	2.00	2.65	-	-	-	5.30	2.00	2.65
524	-	-	-	12.64	3.00	4.21	22.82	5.72	3.99	45.52	8.72	5.22	80.98	17.44	4.64

Appendix table 7.--Total catch (Y), standard effective trip (f), and catch per standard effective trip (Y/f) according to statistical areas, by quarters of the year, 1954--Continued

Area	First quarter			Second quarter			Third quarter			Fourth quarter			Annual		
	Y	f	Y/f	Y	f	Y/f	Y	f	Y/f	Y	f	Y/f	Y	f	Y/f
	Metric tons	Number	Metric tons	Metric tons	Number	Metric tons	Metric tons	Number	Metric tons	Metric tons	Number	Metric tons	Metric tons	Number	Metric tons
525	6.24	0.72	8.66	4.52	1.44	3.14	26.79	6.32	4.24	20.01	6.44	3.11	57.56	14.92	3.86
526	2.50	1.44	1.74	2.58	1.00	2.58	119.35	25.88	4.61	11.34	3.00	3.78	135.77	31.32	4.33
527	2.04	2.00	1.02	12.30	0.72	17.08	28.85	7.60	3.80	1.24	1.44	0.86	44.43	11.76	3.78
528	-	-	-	14.02	3.00	4.67	7.69	2.72	2.83	-	-	-	21.71	5.72	3.80
547	-	-	-	3.85	0.72	5.34	-	-	-	-	-	-	3.85	0.72	5.34
560	-	-	-	14.05	2.00	7.02	-	-	-	-	-	-	14.05	2.00	7.02
561	-	-	-	17.23	4.88	3.53	2.19	0.72	3.04	-	-	-	19.42	5.60	3.47
562	-	-	-	-	-	-	11.44	2.72	4.21	-	-	-	11.44	2.72	4.21
563	-	-	-	3.86	1.00	3.86	10.06	0.72	13.97	13.21	2.00	6.61	27.13	3.72	7.29
564	-	-	-	0.59	1.00	0.59	-	-	-	7.71	1.00	7.71	8.30	2.00	4.15
565	-	-	-	-	-	-	7.63	0.72	10.59	-	-	-	7.63	0.72	10.59
571	-	-	-	-	-	-	15.57	6.72	2.32	28.56	5.16	5.54	44.13	11.88	3.71
572	-	-	-	-	-	-	3.63	1.00	3.63	-	-	-	3.63	1.00	3.63
581	-	-	-	-	-	-	16.25	3.00	5.42	-	-	-	16.25	3.00	5.42
Total	306.79	242.24	1.27	1,125.02	358.52	3.14	2,980.75	708.12	4.21	674.75	292.44	2.31	5,087.31	1,601.32	3.18

Appendix table 8.--Total catch (Y), standard effective trip (f), and catch per standard effective trip (Y/f) according to statistical areas, by quarters of the year, 1955

Area	First quarter			Second quarter			Third quarter			Fourth quarter			Annual		
	Y	f	Y/f	Y	f	Y/f	Y	f	Y/f	Y	f	Y/f	Y	f	Y/f
	Metric tons	Number	Metric tons	Metric tons	Number	Metric tons	Metric tons	Number	Metric tons	Metric tons	Number	Metric tons	Metric tons	Number	Metric tons
120	2.10	2.00	1.05	36.78	7.36	5.00	-	-	-	-	-	-	38.88	9.36	4.15
121	4.26	3.68	1.16	37.98	9.36	4.06	7.27	5.04	1.44	1.13	1.68	0.67	50.64	19.76	2.56
122	-	-	-	2.75	0.84	3.28	99.03	19.84	4.99	62.59	27.20	2.30	164.37	47.88	3.43
123	-	-	-	-	-	-	16.02	3.00	5.34	4.29	3.00	1.43	20.31	6.00	3.38
124	2.43	8.00	0.30	61.11	42.28	1.45	17.56	6.84	2.57	23.66	17.76	1.33	104.76	74.88	1.40
125	1.83	4.00	0.46	89.52	49.96	1.79	48.71	33.12	1.47	14.07	20.60	0.68	154.13	107.68	1.43
126	-	-	-	34.35	18.56	1.85	43.14	34.60	1.25	32.32	18.40	1.76	109.81	71.56	1.53
127	-	-	-	4.72	2.84	1.66	6.63	2.84	2.33	-	-	-	11.35	5.68	2.00
240	-	-	-	1.87	1.68	1.11	-	-	-	-	-	-	1.87	1.68	1.11
321	-	-	-	-	-	-	3.21	2.68	1.20	4.04	1.68	2.40	7.25	4.36	1.66
322	-	-	-	1.11	1.00	1.11	13.39	7.88	1.70	19.15	13.92	1.38	33.65	22.80	1.48
323	-	-	-	6.76	0.84	8.05	86.13	23.56	3.66	19.38	9.04	2.14	112.27	33.44	3.36
324	-	-	-	-	-	-	8.01	2.52	3.18	0.50	0.84	0.60	8.51	3.36	2.53
325	-	-	-	-	-	-	17.86	4.68	3.82	-	-	-	17.86	4.68	3.82
326	16.23	17.76	0.91	63.50	15.24	4.17	1.80	0.84	2.14	-	-	-	81.53	33.84	2.41
327	16.52	15.08	1.10	81.65	18.08	4.52	19.33	9.24	2.09	0.06	0.84	0.07	117.56	43.24	2.72
328	51.98	46.24	1.12	118.59	36.40	3.26	77.11	44.40	1.74	15.69	15.40	0.07	263.37	142.44	1.85
331	18.61	26.76	0.70	84.74	51.20	1.66	72.61	39.84	1.82	5.03	5.20	0.97	180.99	123.00	1.47
332	33.57	25.28	1.33	41.08	19.56	2.10	64.70	29.80	2.17	29.11	21.72	1.34	168.46	96.36	1.75
333	-	-	-	2.96	0.84	3.52	25.77	5.52	4.67	23.42	9.04	2.59	52.15	15.40	3.39
350	3.88	4.84	0.80	-	-	-	-	-	-	-	-	-	3.88	4.84	0.80
351	8.22	7.72	1.07	3.54	2.84	1.25	-	-	-	-	-	-	11.76	10.56	1.11
352	-	-	-	0.82	1.00	0.82	22.59	4.20	5.38	-	-	-	23.41	5.20	4.50
358	-	-	-	-	-	-	2.09	1.00	2.09	13.00	4.20	3.10	15.09	5.20	2.90
359	-	-	-	-	-	-	0.81	0.84	0.97	-	-	-	0.81	0.84	0.97
360	-	-	-	0.09	0.84	0.11	3.23	2.52	1.28	-	-	-	3.32	3.36	0.99
361	-	-	-	1.80	0.84	2.14	6.39	2.00	3.20	-	-	-	8.19	2.84	2.88
420	7.03	9.56	0.74	32.28	27.20	1.19	31.40	13.76	2.28	0.72	2.00	0.36	71.43	52.52	1.36
421	5.39	6.84	0.79	24.01	16.40	1.46	8.12	7.36	1.10	3.30	1.68	1.97	40.82	32.28	1.26
422	5.66	4.36	1.30	41.02	24.96	1.64	2.80	3.00	0.93	3.35	2.00	1.68	52.83	34.32	1.54

Appendix table 8.--Total catch (Y), standard effective trip (f), and catch per standard effective trip (Y/f) according to statistical areas, by quarters of the year, 1955--Continued

Area	First quarter			Second quarter			Third quarter			Fourth quarter			Annual		
	Y	f	Y/f	Y	f	Y/f	Y	f	Y/f	Y	f	Y/f	Y	f	Y/f
	Metric tons	Number	Metric tons	Metric tons	Number	Metric tons	Metric tons	Number	Metric tons	Metric tons	Number	Metric tons	Metric tons	Number	Metric tons
423	6.61	8.68	0.76	116.82	53.56	2.18	30.22	28.80	1.05	15.65	15.36	1.02	169.30	106.40	1.59
424	-	-	-	166.09	34.28	4.85	25.62	11.52	2.22	8.82	7.84	1.12	200.53	53.64	3.74
425	-	-	-	196.13	41.20	4.76	24.18	10.88	2.22	1.63	1.00	1.63	221.94	53.08	4.18
426	-	-	-	10.85	6.00	1.81	2.14	0.84	2.55	2.77	3.00	0.92	15.76	9.84	1.60
427	0.82	1.00	0.82	25.38	6.20	4.09	27.52	8.20	3.36	2.41	3.00	0.80	56.13	18.40	3.05
428	5.01	6.84	0.73	21.23	12.68	1.67	13.10	11.24	1.17	27.54	26.96	1.02	66.88	57.72	1.16
429	0.77	2.00	0.38	1.69	1.00	1.69	22.62	19.08	1.18	3.00	5.00	0.60	28.08	27.08	1.04
443	-	-	-	11.05	5.00	2.21	-	-	-	-	-	-	11.05	5.00	2.21
444	-	-	-	3.16	2.00	1.58	-	-	-	-	-	-	3.16	2.00	1.58
445	-	-	-	1.97	2.00	0.98	-	-	-	-	-	-	1.97	2.00	0.98
446	-	-	-	6.46	2.00	3.23	-	-	-	-	-	-	6.46	2.00	3.23
448	-	-	-	1.57	2.00	0.78	-	-	-	-	-	-	1.57	2.00	0.78
449	1.16	1.00	1.16	9.48	2.68	3.54	-	-	-	-	-	-	10.64	3.68	2.89
450	-	-	-	26.73	13.40	1.99	-	-	-	-	-	-	26.73	13.40	1.99
451	1.90	0.84	2.26	5.86	1.68	3.49	5.18	2.00	2.59	-	-	-	12.94	4.52	2.86
452	5.14	5.68	0.90	6.60	6.88	0.96	-	-	-	-	-	-	11.74	12.56	0.93
453	6.04	1.84	3.28	14.61	5.68	2.57	-	-	-	-	-	-	20.65	7.52	2.75
454	-	-	-	10.73	6.04	1.78	-	-	-	-	-	-	10.73	6.04	1.78
455	3.18	1.00	3.18	73.04	32.44	2.25	-	-	-	-	-	-	76.22	33.44	2.28
456	-	-	-	95.97	19.40	4.95	-	-	-	-	-	-	95.97	19.40	4.95
457	-	-	-	36.63	8.36	4.38	9.28	4.00	2.32	-	-	-	45.91	12.36	3.71
458	-	-	-	9.24	1.68	5.50	-	-	-	-	-	-	9.24	1.68	5.50
460	-	-	-	28.74	8.84	3.25	1.36	1.00	1.36	-	-	-	30.10	9.84	3.06
461	-	-	-	32.64	7.52	4.34	-	-	-	-	-	-	32.64	7.52	4.34
462	-	-	-	27.21	4.68	5.81	-	-	-	-	-	-	27.21	4.68	5.81
520	1.12	1.00	1.12	14.46	4.68	3.09	1.25	0.84	1.49	1.65	1.00	1.65	18.48	7.52	2.46
521	0.74	1.84	0.40	21.62	2.00	10.81	11.48	3.00	3.83	12.11	2.84	4.26	45.95	9.68	4.75
522	-	-	-	15.49	2.00	7.75	20.14	3.68	5.47	8.85	2.84	3.12	44.48	8.52	5.22
523	-	-	-	10.61	4.00	2.65	2.49	1.00	2.49	8.94	4.00	2.23	22.04	9.00	2.45
524	-	-	-	48.64	10.20	4.77	2.03	1.84	1.10	9.72	3.68	2.64	60.39	15.72	3.84
525	-	-	-	3.96	1.00	3.96	6.55	2.84	2.30	3.28	1.00	3.28	13.79	4.84	2.85
526	-	-	-	26.52	5.00	5.30	172.68	40.76	4.24	6.99	3.00	2.33	206.19	48.76	4.23
527	-	-	-	20.11	3.00	6.70	17.12	4.20	4.08	25.16	7.00	3.59	62.39	14.20	4.39
528	-	-	-	-	-	-	2.49	1.68	1.48	6.93	3.36	2.06	9.42	5.04	1.87
560	-	-	-	13.81	11.00	1.26	-	-	-	-	-	-	13.81	11.00	1.26
561	-	-	-	16.64	5.52	3.01	-	-	-	-	-	-	16.64	5.52	3.01
562	4.31	1.00	4.31	20.36	5.20	3.92	11.87	2.00	5.94	-	-	-	36.54	8.20	4.46
571	2.27	1.00	2.27	60.47	10.72	5.64	5.99	0.84	7.13	-	-	-	68.73	12.56	5.47
Total	216.78	215.84	1.00	1,985.60	701.64	2.83	1,121.02	471.16	2.38	420.26	267.08	1.57	3,743.66	1,655.72	2.26

Appendix table 9.--Total catch (Y), standard effective trip (f), and catch per standard effective trip (Y/f) according to statistical areas, by quarters of the year, 1956

Area	First quarter			Second quarter			Third quarter			Fourth quarter			Annual		
	Y	f	Y/f	Y	f	Y/f	Y	f	Y/f	Y	f	Y/f	Y	f	Y/f
	Metric tons	Number	Metric tons	Metric tons	Number	Metric tons	Metric tons	Number	Metric tons	Metric tons	Number	Metric tons	Metric tons	Number	Metric tons
120	-	-	-	4.54	1.00	4.54	-	-	-	-	-	-	4.54	1.00	4.54
121	-	-	-	-	-	-	6.31	4.20	1.50	0.60	1.60	0.38	6.91	5.80	1.19
122	0.59	1.80	0.33	2.07	1.00	2.07	15.46	5.20	2.97	17.15	6.00	2.86	35.27	14.00	2.52
123	-	-	-	-	-	-	10.45	2.40	4.35	1.11	0.80	1.38	11.56	3.20	3.61
124	4.95	4.40	1.12	58.08	27.20	2.14	157.39	41.40	3.80	44.81	46.40	0.97	265.23	119.40	2.22
125	3.24	5.60	0.58	54.50	23.80	2.29	65.66	18.00	3.65	0.99	2.00	0.50	124.39	49.40	2.52
126	1.37	3.60	0.38	23.39	14.80	1.58	26.78	8.00	3.35	0.29	1.00	0.29	51.83	27.40	1.89
321	-	-	-	-	-	-	10.04	2.40	4.18	-	-	-	10.04	2.40	4.18
322	-	-	-	128.77	26.00	4.95	160.91	43.40	3.71	5.35	2.60	2.06	295.03	72.00	4.10
323	8.77	2.00	4.38	6.44	3.80	1.69	50.06	14.80	3.38	2.09	1.00	2.09	67.36	21.60	3.12

Appendix table 9.--Total catch (Y), standard effective trip (f), and catch per standard effective trip (Y/f) according to statistical areas, by quarters of the year, 1956--Continued

Area	First quarter			Second quarter			Third quarter			Fourth quarter			Annual		
	Y	f	Y/f	Y	f	Y/f	Y	f	Y/f	Y	f	Y/f	Y	f	Y/f
	Metric tons	Number	Metric tons	Metric tons	Number	Metric tons	Metric tons	Number	Metric tons	Metric tons	Number	Metric tons	Metric tons	Number	Metric tons
326	0.87	1.00	0.87	0.45	1.00	0.45	2.99	0.80	3.73	4.91	1.60	3.07	9.22	4.40	2.10
327	31.51	14.00	2.25	15.48	9.40	1.65	69.51	14.40	4.83	19.50	7.40	2.64	136.00	45.20	3.01
328	52.00	33.60	1.55	118.22	57.40	2.06	97.24	24.60	3.95	121.41	53.20	2.28	388.87	168.80	2.30
331	14.36	14.80	0.97	5.82	7.60	0.77	57.03	32.80	1.74	21.73	8.20	2.65	98.94	63.40	1.56
332	35.41	22.00	1.61	53.07	19.60	2.71	141.49	38.40	3.68	16.78	8.60	1.95	246.75	88.60	2.78
333	14.26	9.20	1.55	19.80	9.20	2.15	42.61	12.40	3.44	9.48	1.80	5.27	86.15	32.60	2.64
350	-	-	-	-	-	-	3.16	2.00	1.58	4.59	2.60	1.76	7.75	4.60	1.68
351	6.45	7.00	0.92	1.91	1.80	1.06	10.89	0.80	13.62	7.39	2.60	2.84	26.64	12.20	2.18
352	-	-	-	-	-	-	-	-	-	3.75	0.80	4.68	3.75	0.80	4.69
354	-	-	-	-	-	-	2.02	0.80	2.53	-	-	-	2.02	0.80	2.53
356	-	-	-	-	-	-	4.64	2.40	1.93	-	-	-	4.64	2.40	1.93
357	-	-	-	5.02	0.80	6.28	50.55	7.20	7.02	1.32	0.80	1.64	56.89	8.80	6.46
358	4.39	2.40	1.83	28.52	6.80	4.19	-	-	-	-	-	-	32.91	9.20	3.58
359	4.55	4.00	1.14	30.95	5.60	5.53	41.23	9.00	4.58	-	-	-	76.73	18.60	4.12
360	1.36	2.40	0.57	10.93	2.40	4.55	18.56	2.80	6.63	-	-	-	30.85	7.60	4.06
361	5.51	2.40	2.29	0.73	1.80	0.41	-	-	-	-	-	-	6.24	4.20	1.48
420	9.32	5.80	1.61	21.30	6.80	3.13	9.94	4.60	2.16	19.46	9.60	2.03	60.02	26.80	2.24
421	1.91	1.60	1.19	11.56	8.00	1.44	44.20	12.80	3.45	21.11	7.60	2.78	78.78	30.00	2.63
422	0.70	1.00	0.70	81.20	22.40	3.63	73.25	26.60	2.75	36.79	11.60	3.17	191.94	61.60	3.12
423	28.87	24.20	1.19	115.49	55.20	2.09	140.99	45.40	3.10	53.59	29.40	1.82	338.94	154.20	2.20
424	8.92	7.80	1.14	74.04	18.40	4.02	16.80	5.80	2.90	-	-	-	99.76	32.00	3.12
425	12.09	6.40	1.89	140.12	41.40	3.38	47.66	11.40	4.18	-	-	-	199.87	59.20	3.38
426	6.94	4.60	1.51	97.98	36.20	2.71	54.02	13.40	4.03	-	-	-	158.94	54.20	2.93
427	12.45	6.20	2.01	143.77	35.00	4.11	58.65	12.60	4.65	-	-	-	214.87	53.80	3.99
428	26.30	21.60	1.22	20.64	6.60	3.13	30.67	11.00	2.79	26.22	9.80	2.68	103.83	49.00	2.12
429	16.36	9.40	1.74	-	-	-	31.84	11.20	2.84	11.49	8.00	1.44	59.69	28.60	2.09
443	2.86	1.00	2.86	-	-	-	48.64	10.20	4.77	-	-	-	51.50	11.20	4.60
444	-	-	-	-	-	-	-	-	-	10.76	5.00	2.15	10.76	5.00	2.15
445	-	-	-	-	-	-	28.43	6.80	4.18	-	-	-	28.43	6.80	4.18
448	2.99	1.00	2.99	-	-	-	9.18	1.00	9.18	-	-	-	12.17	2.00	6.08
450	-	-	-	-	-	-	18.42	6.60	2.79	-	-	-	18.42	6.60	2.79
451	5.28	5.00	1.06	9.13	2.80	3.26	117.10	23.00	5.09	7.59	4.00	1.90	139.10	34.80	4.00
452	15.27	7.80	1.96	0.31	1.00	0.31	70.80	18.20	3.89	11.57	4.40	2.63	97.95	31.40	3.12
453	2.30	1.60	1.44	15.08	4.80	3.14	58.47	19.20	3.05	15.16	14.40	1.05	91.01	40.00	2.28
454	-	-	-	5.25	1.60	3.28	33.44	10.80	3.10	2.46	1.60	1.53	41.15	14.00	2.94
455	5.98	5.00	1.20	38.90	14.60	2.66	51.57	15.40	3.35	25.82	10.80	2.39	122.27	45.80	2.67
456	13.47	1.80	7.48	-	-	-	7.87	1.80	4.37	-	-	-	21.34	3.60	5.93
457	0.02	0.80	0.02	86.91	18.20	4.78	97.56	22.20	4.39	-	-	-	184.49	41.20	4.48
458	-	-	-	42.87	6.40	6.70	-	-	-	-	-	-	42.87	6.40	6.70
459	-	-	-	31.01	3.60	8.61	32.03	5.00	6.41	-	-	-	63.04	8.60	7.33
460	-	-	-	93.66	16.20	5.78	15.38	4.00	3.85	-	-	-	109.04	20.20	5.40
461	-	-	-	10.18	2.00	5.09	-	-	-	-	-	-	10.18	2.00	5.09
462	-	-	-	0.80	0.80	1.00	-	-	-	-	-	-	0.80	0.80	1.00
464	-	-	-	-	-	-	0.64	0.80	0.80	-	-	-	0.64	0.80	0.80
520	-	-	-	9.77	2.80	3.49	-	-	-	19.35	2.00	9.68	29.12	4.80	6.07
521	1.13	1.00	1.13	-	-	-	48.48	9.40	5.16	33.27	10.00	3.33	82.88	20.40	4.06
522	-	-	-	-	-	-	12.28	4.80	2.56	62.29	8.40	7.42	74.57	13.20	5.65
523	-	-	-	-	-	-	4.73	0.80	5.91	-	-	-	4.73	0.80	5.91
524	2.86	0.80	3.57	9.54	3.20	2.98	-	-	-	24.52	6.80	3.61	36.92	10.80	3.42
525	0.91	1.00	0.91	-	-	-	2.52	0.80	3.15	15.12	2.60	5.82	18.55	4.40	4.22
526	0.98	0.80	1.23	-	-	-	8.69	2.40	3.62	7.02	1.80	3.90	16.69	5.00	3.34
527	0.94	1.00	0.94	-	-	-	-	-	-	-	-	-	0.94	1.00	0.94
561	0.51	1.00	0.51	-	-	-	0.63	0.80	0.79	-	-	-	1.14	1.80	0.63
562	3.11	1.60	1.94	3.15	2.00	1.58	-	-	-	-	-	-	6.26	3.60	1.74
571	3.87	1.00	3.87	18.86	7.80	2.42	18.33	4.00	4.58	5.51	3.20	1.72	46.57	16.00	2.91
Total	375.93	251.00	1.50	1,650.21	538.80	3.06	2,238.19	611.00	3.66	692.35	300.00	2.31	4,956.68	1,700.80	2.91

Appendix table 10.--Total catch (Y), standard effective trip (f), and catch per standard effective trip (Y/f) according to statistical areas, by quarters of the year, 1957

Area	First quarter			Second quarter			Third quarter			Fourth quarter			Annual		
	Y	f	Y/f	Y	f	Y/f	Y	f	Y/f	Y	f	Y/f	Y	f	Y/f
	Metric tons	Number	Metric tons	Metric tons	Number	Metric tons	Metric tons	Number	Metric tons	Metric tons	Number	Metric tons	Metric tons	Number	Metric tons
120	-	-	-	0.90	1.00	0.90	-	-	-	-	-	-	0.90	1.00	0.90
121	-	-	-	0.49	0.82	0.60	-	-	-	-	-	-	0.49	0.82	0.60
122	2.81	1.00	2.81	4.86	3.82	1.27	1.25	0.82	1.52	10.46	5.00	2.09	19.38	10.64	1.82
123	-	-	-	24.60	13.82	1.78	2.32	1.00	2.32	-	-	-	26.92	14.82	1.82
124	10.77	13.02	0.83	68.66	39.50	1.74	98.03	59.02	1.66	23.78	30.22	0.79	201.24	141.76	1.42
125	9.05	6.00	1.51	15.98	10.10	1.58	6.08	3.28	1.85	0.81	1.64	0.49	31.92	21.02	1.52
126	1.03	1.00	1.03	19.36	13.28	1.46	12.60	10.46	1.20	13.55	11.46	1.18	46.54	36.20	1.28
320	9.34	1.64	5.70	-	-	-	6.26	4.10	1.53	7.19	7.82	0.92	22.79	13.56	1.68
321	-	-	-	-	-	-	-	-	-	0.54	0.82	0.66	0.54	0.82	0.66
322	-	-	-	23.50	11.00	2.14	35.24	10.00	3.52	18.39	7.38	2.49	77.13	28.38	2.72
323	-	-	-	44.82	23.02	1.95	49.49	21.10	2.35	3.21	1.00	3.21	97.52	45.12	2.16
324	1.07	0.82	1.30	-	-	-	-	-	-	-	-	-	1.07	0.82	1.30
325	3.03	4.46	0.68	-	-	-	-	-	-	4.79	4.64	1.03	7.82	9.10	0.86
326	16.20	6.00	2.70	11.01	5.28	2.08	-	-	-	1.98	1.64	1.21	29.19	12.92	2.26
327	10.34	10.46	0.99	3.03	2.00	1.52	0.93	1.82	0.51	0.49	1.00	0.49	14.79	15.28	0.97
328	93.75	52.22	1.80	38.07	22.30	1.71	89.87	54.78	1.64	64.97	39.40	1.65	286.66	168.70	1.70
331	15.19	8.92	1.70	25.16	10.10	2.49	54.83	33.04	1.66	12.05	8.92	1.35	107.23	60.98	1.76
332	27.70	9.64	2.87	23.49	13.38	1.76	27.10	15.92	1.70	2.76	4.82	0.57	81.05	43.76	1.85
333	15.33	3.00	5.11	28.57	18.02	1.59	14.39	7.00	1.61	2.18	2.00	1.09	60.47	30.02	2.01
350	18.82	5.92	3.18	1.32	2.64	0.50	4.59	1.82	2.52	1.84	1.64	1.12	26.57	12.02	2.21
351	13.51	5.28	2.56	2.55	2.00	1.27	2.57	2.82	0.91	23.92	17.64	1.36	42.55	27.74	1.53
353	-	-	-	12.32	4.10	3.00	-	-	-	-	-	-	12.32	4.10	3.00
357	-	-	-	17.01	4.92	3.46	11.89	6.56	1.81	-	-	-	28.90	11.48	2.52
358	-	-	-	0.10	1.00	0.10	4.20	3.28	1.28	-	-	-	4.30	4.28	1.00
359	-	-	-	3.31	3.82	0.87	1.46	0.82	1.78	-	-	-	4.77	4.64	1.03
360	-	-	-	1.10	0.82	1.34	-	-	-	-	-	-	1.10	0.82	1.34
361	0.16	1.64	0.10	15.06	9.82	1.53	-	-	-	-	-	-	15.22	11.46	1.33
362	-	-	-	5.50	2.46	2.24	-	-	-	-	-	-	5.50	2.46	2.24
420	13.13	9.82	1.34	1.14	1.00	1.14	23.85	10.28	2.32	10.55	4.28	2.47	48.67	25.38	1.92
421	4.17	2.82	1.48	7.19	5.00	1.44	3.22	3.64	0.88	20.14	9.56	2.11	34.72	21.02	1.65
422	28.80	12.10	2.38	11.93	14.46	0.82	30.79	15.82	1.95	22.11	14.74	1.50	93.63	57.12	1.64
423	24.93	11.74	2.12	65.05	44.70	1.46	95.12	61.50	1.55	43.03	36.40	1.18	228.13	154.34	1.48
424	9.48	6.92	1.37	24.21	18.20	1.33	19.74	10.56	1.87	11.05	6.46	1.71	64.48	42.14	1.53
425	-	-	-	31.42	17.20	1.83	37.39	18.92	1.98	4.24	0.82	5.17	73.05	36.94	1.98
426	3.93	2.46	1.60	39.33	15.66	2.51	33.45	6.10	5.48	-	-	-	76.71	24.22	3.17
427	13.82	8.82	1.57	30.53	15.74	1.94	8.55	6.46	1.32	0.04	0.82	0.05	52.94	31.84	1.66
428	7.25	5.64	1.29	3.68	4.64	0.79	3.84	4.82	0.80	13.89	3.82	3.64	28.66	18.92	1.51
429	8.69	2.64	3.29	1.42	1.64	0.87	13.15	8.38	1.57	4.11	1.82	2.26	27.37	14.48	1.89
443	-	-	-	-	-	-	9.55	6.00	1.59	-	-	-	9.55	6.00	1.59
444	-	-	-	-	-	-	6.61	2.00	3.30	-	-	-	6.61	2.00	3.30
445	-	-	-	-	-	-	8.05	1.00	8.05	-	-	-	8.05	1.00	8.05
449	-	-	-	-	-	-	9.77	2.00	4.88	-	-	-	9.77	2.00	4.88
450	-	-	-	1.97	1.64	1.20	17.39	7.00	2.48	0.10	1.00	0.10	19.46	9.64	2.02
451	5.55	2.64	2.10	3.34	4.28	0.78	21.18	7.00	3.03	0.71	1.00	0.71	30.78	14.92	2.06
452	1.52	0.82	1.86	-	-	-	23.20	6.82	3.40	2.21	3.64	0.61	26.93	11.28	2.39
453	9.89	6.82	1.45	7.35	7.74	0.95	27.62	14.20	1.95	0.16	0.82	0.19	45.02	29.58	1.52
454	-	-	-	5.13	5.46	0.94	-	-	-	1.09	0.82	1.33	6.22	6.28	0.99
455	11.06	6.82	1.62	36.75	17.74	2.07	41.41	14.64	2.83	16.29	6.00	2.72	105.51	45.20	2.33
456	-	-	-	18.12	8.74	2.07	15.85	3.28	4.83	2.10	1.00	2.10	36.07	13.02	2.77
457	-	-	-	24.84	14.38	1.73	0.98	1.64	0.59	-	-	-	25.82	16.02	1.61
460	-	-	-	17.44	7.64	2.28	-	-	-	-	-	-	17.44	7.64	2.28
461	-	-	-	10.98	5.64	1.95	-	-	-	-	-	-	10.98	5.64	1.95
520	23.64	3.82	6.19	5.71	0.82	6.97	10.93	3.00	3.64	4.72	1.00	4.72	45.00	8.64	5.21
521	-	-	-	0.54	2.00	0.27	8.25	4.00	2.06	16.76	7.28	2.30	25.55	13.28	1.92
522	61.54	10.92	5.64	9.24	2.00	4.62	9.37	4.00	1.84	20.35	11.00	1.85	100.50	27.92	3.60
523	16.33	3.64	4.49	33.04	8.28	3.99	-	-	-	-	-	-	49.37	11.92	4.14
524	18.07	2.00	9.04	48.58	17.64	2.75	5.22	1.00	5.22	10.92	3.00	3.64	82.79	23.64	3.50
525	10.34	1.64	6.31	5.82	2.82	2.06	17.78	3.00	5.93	11.52	3.82	3.02	45.46	11.28	4.03
526	5.28	1.00	5.28	3.95	1.00	3.95	-	-	-	13.95	4.00	3.49	23.18	6.00	3.86
527	-	-	-	3.33	0.82	4.06	-	-	-	-	-	-	3.33	0.82	4.06

Appendix table 10.--Total catch (Y), standard effective trip (f), and catch per standard effective trip (Y/f) according to statistical areas, by quarters of the year, 1957--Continued

Area	First quarter			Second quarter			Third quarter			Fourth quarter			Annual		
	Y	f	Y/f	Y	f	Y/f	Y	f	Y/f	Y	f	Y/f	Y	f	Y/f
	Metric tons	Number	Metric tons	Metric tons	Number	Metric tons	Metric tons	Number	Metric tons	Metric tons	Number	Metric tons	Metric tons	Number	Metric tons
528	-	-	-	-	-	-	0.90	0.82	1.10	-	-	-	0.90	0.82	1.10
561	-	-	-	-	-	-	-	-	-	1.99	1.00	1.99	1.99	1.00	1.99
562	-	-	-	7.51	3.82	1.97	-	-	-	-	-	-	7.51	3.82	1.97
563	-	-	-	-	-	-	-	-	-	1.48	1.00	1.48	1.48	1.00	1.48
564	-	-	-	3.14	2.82	1.12	-	-	-	-	-	-	3.14	2.82	1.12
571	-	-	-	9.95	5.64	1.76	2.93	2.00	1.47	2.09	2.00	1.05	14.97	9.64	1.55
572	4.63	1.00	4.63	2.46	1.82	1.35	-	-	-	-	-	-	7.09	2.82	2.51
581	-	-	-	1.49	1.00	1.49	-	-	-	-	-	-	1.49	1.00	1.49
Total	530.15	235.10	2.25	867.35	481.00	1.80	929.19	467.52	1.99	428.51	274.14	1.56	2,755.20	1,457.76	1.89

Appendix table 11.--Total catch (Y), standard effective trip (f), and catch per standard effective trip (Y/f) according to statistical areas, by quarters of the year, 1958

Area	First quarter			Second quarter			Third quarter			Fourth quarter			Annual		
	Y	f	Y/f	Y	f	Y/f	Y	f	Y/f	Y	f	Y/f	Y	f	Y/f
	Metric tons	Number	Metric tons	Metric tons	Number	Metric tons	Metric tons	Number	Metric tons	Metric tons	Number	Metric tons	Metric tons	Number	Metric tons
122	-	-	-	5.38	2.72	1.98	49.83	13.32	3.74	-	-	-	55.21	16.04	3.44
123	1.32	1.00	1.32	-	-	-	-	-	-	-	-	-	1.32	1.00	1.32
124	22.13	20.36	1.09	96.04	56.16	1.71	81.20	47.52	1.71	32.73	33.68	0.97	232.10	157.72	1.47
125	-	-	-	24.97	8.00	3.12	1.05	1.00	1.05	-	-	-	26.02	9.00	2.89
126	-	-	-	17.12	5.00	3.42	43.07	19.00	2.27	6.48	5.00	1.30	66.67	29.00	2.30
321	-	-	-	-	-	-	2.13	0.72	2.96	-	-	-	2.13	0.72	2.96
322	-	-	-	52.21	28.36	1.84	24.74	13.72	1.80	19.66	12.04	1.63	96.61	54.12	1.78
323	0.49	0.72	0.68	67.57	27.16	2.49	74.26	28.04	2.65	16.84	10.04	1.68	159.16	65.96	2.41
324	-	-	-	-	-	-	22.87	4.00	5.72	-	-	-	22.87	4.00	5.72
325	0.16	0.72	0.22	10.02	5.00	2.00	2.63	1.72	1.53	-	-	-	12.81	7.44	1.72
327	4.19	4.44	0.94	5.27	2.72	1.94	29.07	9.92	2.93	6.65	6.00	1.11	45.18	23.08	1.96
328	87.99	45.68	1.93	18.99	16.92	1.12	77.09	29.16	2.64	41.84	30.00	1.39	225.91	121.76	1.86
331	26.42	24.68	1.07	21.91	11.92	1.84	28.91	10.64	2.72	7.35	10.88	0.68	84.59	58.12	1.46
332	63.46	24.32	2.61	28.29	16.32	1.73	41.99	20.08	2.09	25.25	19.04	1.33	158.99	79.76	1.99
333	2.02	1.00	2.02	9.06	3.44	2.63	50.02	8.72	5.74	-	-	-	61.10	13.16	4.64
350	-	-	-	-	-	-	2.78	1.72	1.61	-	-	-	2.78	1.72	1.61
351	4.57	5.16	0.89	4.76	3.16	1.51	10.70	6.00	1.78	-	-	-	20.03	14.32	1.40
358	-	-	-	-	-	-	1.41	0.72	1.95	-	-	-	1.41	0.72	1.95
359	-	-	-	2.70	2.44	1.11	-	-	-	-	-	-	2.70	2.44	1.11
360	1.19	2.00	0.60	9.90	7.44	1.33	17.11	4.16	4.11	-	-	-	28.20	13.60	2.07
361	-	-	-	0.90	0.72	1.26	-	-	-	-	-	-	0.90	0.72	1.26
362	-	-	-	3.43	2.16	1.59	-	-	-	-	-	-	3.43	2.16	1.59
372	-	-	-	-	-	-	2.88	0.72	4.00	-	-	-	2.88	0.72	4.00
420	5.59	3.44	1.62	3.39	3.16	1.07	37.11	13.52	2.74	21.78	14.64	1.49	67.87	34.76	1.95
421	0.21	0.72	0.29	-	-	-	9.12	4.44	2.06	12.56	8.16	1.54	21.89	13.32	1.64
422	6.81	4.44	1.53	-	-	-	166.55	38.24	4.36	4.33	6.88	0.63	177.69	49.56	3.58
423	44.72	25.40	1.76	64.37	54.72	1.18	152.81	60.48	2.53	11.81	9.88	1.20	273.71	150.48	1.82
424	19.72	14.20	1.39	38.98	17.32	2.25	50.30	18.16	2.77	3.32	2.00	1.66	112.32	51.68	2.17
425	15.41	8.16	1.89	126.77	50.64	2.50	17.38	9.32	1.86	-	-	-	159.56	68.12	2.34
426	10.58	4.72	2.24	55.69	16.92	3.29	30.34	10.04	3.02	-	-	-	96.61	31.68	3.05
427	33.21	9.60	3.46	64.10	22.48	2.85	16.21	3.88	4.18	0.09	0.72	0.13	113.61	36.68	3.10
428	59.48	26.08	2.28	20.18	10.32	1.96	42.36	16.48	2.57	10.89	10.16	1.07	132.91	63.04	2.11
429	1.01	2.44	0.41	2.23	2.88	0.78	4.18	2.72	1.54	16.48	18.32	0.90	23.90	26.36	0.91
442	-	-	-	0.30	1.44	0.21	-	-	-	-	-	-	0.30	1.44	0.21
443	-	-	-	0.89	0.72	1.23	11.30	3.00	3.77	-	-	-	12.19	3.72	3.28

Appendix table 11.--Total catch (Y), standard effective trip (f), and catch per standard effective trip (Y/f) according to statistical areas, by quarters of the year, 1958--Continued

Area	First quarter			Second quarter			Third quarter			Fourth quarter			Annual		
	Y	f	Y/f	Y	f	Y/f	Y	f	Y/f	Y	f	Y/f	Y	f	Y/f
	Metric tons	Number	Metric tons	Metric tons	Number	Metric tons	Metric tons	Number	Metric tons	Metric tons	Number	Metric tons	Metric tons	Number	Metric tons
444	-	-	-	0.99	0.72	1.37	3.32	1.00	3.32	-	-	-	4.31	1.72	2.50
445	-	-	-	-	-	-	22.42	3.44	6.52	-	-	-	22.42	3.44	6.52
448	-	-	-	-	-	-	4.86	0.72	6.75	-	-	-	4.86	0.72	6.75
449	-	-	-	-	-	-	1.39	1.00	1.39	-	-	-	1.39	1.00	1.39
450	-	-	-	-	-	-	8.58	3.16	2.71	1.14	1.00	1.14	9.72	4.16	2.34
451	7.21	3.00	2.40	-	-	-	38.18	9.60	3.98	-	-	-	45.39	12.60	3.60
452	6.70	1.72	3.89	-	-	-	7.84	4.16	1.88	-	-	-	14.54	5.88	2.47
453	-	-	-	-	-	-	24.86	7.72	3.22	-	-	-	24.86	7.72	3.22
454	-	-	-	1.45	2.00	0.73	5.81	1.72	3.38	-	-	-	7.26	3.72	1.95
455	-	-	-	-	-	-	9.40	4.16	2.26	-	-	-	9.40	4.16	2.26
456	-	-	-	-	-	-	2.27	1.00	2.27	-	-	-	2.27	1.00	2.27
457	10.09	1.00	10.09	78.02	28.08	2.78	11.52	1.44	8.00	-	-	-	99.63	30.52	3.26
460	-	-	-	11.87	2.88	4.12	13.12	2.00	6.56	-	-	-	24.99	4.88	5.12
461	-	-	-	13.84	2.00	6.92	-	-	-	-	-	-	13.84	2.00	6.92
464	-	-	-	4.67	1.44	3.24	-	-	-	-	-	-	4.67	1.44	3.24
520	-	-	-	-	-	-	40.90	4.72	8.67	0.77	1.00	0.77	41.67	5.72	7.28
521	2.15	1.44	1.49	1.81	2.00	0.91	9.28	4.72	1.97	1.95	1.00	1.95	15.19	9.16	1.66
522	6.76	4.00	1.69	-	-	-	6.40	0.72	8.89	1.53	2.00	0.76	14.69	6.72	2.19
523	-	-	-	-	-	-	3.30	1.00	3.30	-	-	-	3.30	1.00	3.30
524	0.24	0.72	0.33	-	-	-	36.17	7.16	5.05	-	-	-	36.41	7.88	4.62
525	-	-	-	-	-	-	-	-	-	0.68	1.00	0.68	0.68	1.00	0.68
526	0.27	1.00	0.27	0.68	1.00	0.68	3.62	1.72	2.10	4.68	2.44	1.92	9.25	6.16	1.50
551	-	-	-	-	-	-	0.07	1.00	0.07	-	-	-	0.07	1.00	0.07
561	-	-	-	-	-	-	6.01	0.72	8.35	-	-	-	6.01	0.72	8.35
562	-	-	-	-	-	-	5.18	1.44	3.60	-	-	-	5.18	1.44	3.60
571	0.05	0.72	0.08	-	-	-	11.29	2.72	4.15	-	-	-	11.34	3.44	3.30
583	1.05	0.72	1.45	-	-	-	-	-	-	-	-	-	1.05	0.72	1.45
Total	445.20	243.60	1.83	868.75	420.36	2.07	1,377.19	468.20	2.94	248.81	205.88	1.21	2,939.95	1,338.04	2.20

Appendix table 12.--Total catch (Y), standard effective trip (f), and catch per standard effective trip (Y/f) according to statistical areas, by quarters of the year, 1959

Area	First quarter			Second quarter			Third quarter			Fourth quarter			Annual		
	Y	f	Y/f	Y	f	Y/f	Y	f	Y/f	Y	f	Y/f	Y	f	Y/f
	Metric tons	Number	Metric tons	Metric tons	Number	Metric tons	Metric tons	Number	Metric tons	Metric tons	Number	Metric tons	Metric tons	Number	Metric tons
121	2.38	2.00	1.19	-	-	-	-	-	-	-	-	-	2.38	2.00	1.19
122	-	-	-	-	-	-	9.78	2.00	4.89	1.25	0.80	1.56	11.03	2.80	3.94
123	-	-	-	-	-	-	4.56	1.00	4.56	3.18	1.00	3.18	7.74	2.00	3.87
124	25.67	15.40	1.67	206.20	73.40	2.81	398.77	87.80	4.54	92.74	39.20	2.37	723.38	215.80	3.35
126	4.35	2.00	2.18	67.88	26.00	2.61	12.71	3.00	4.24	-	-	-	84.94	31.00	2.74
188	-	-	-	-	-	-	-	-	-	2.62	1.80	3.27	2.62	1.80	3.27
248	-	-	-	-	-	-	38.74	5.60	6.92	-	-	-	38.74	5.60	6.92
321	-	-	-	2.11	0.80	2.64	-	-	-	-	-	-	2.11	0.80	2.64
322	-	-	-	19.93	8.80	2.26	102.45	20.40	5.02	19.13	14.20	1.35	141.51	43.40	3.26
323	0.32	1.00	0.32	6.69	2.40	2.79	180.77	28.60	6.32	-	-	-	187.78	32.00	5.87
324	15.09	9.00	1.68	-	-	-	-	-	-	-	-	-	15.09	9.00	1.68
327	25.64	22.00	1.17	63.51	18.40	3.45	33.74	11.60	2.91	-	-	-	122.89	52.00	2.36
328	60.13	75.60	0.80	651.56	145.00	4.49	377.08	55.00	6.86	106.06	44.00	2.41	1,194.83	319.60	3.74
331	20.41	30.00	0.68	124.97	43.80	2.85	16.67	8.20	2.03	15.59	8.80	1.77	177.64	90.80	1.96
332	1.75	1.80	0.97	23.79	8.40	2.83	125.66	35.80	3.51	62.25	20.00	3.11	213.45	66.00	3.23

Appendix table 12.--Total catch (Y), standard effective trip (f), and catch per standard effective trip (Y/f) according to statistical areas, by quarters of the year, 1959--Continued

Area	First quarter			Second quarter			Third quarter			Fourth quarter			Annual		
	Y	f	Y/f	Y	f	Y/f	Y	f	Y/f	Y	f	Y/f	Y	f	Y/f
	Metric tons	Number	Metric tons	Metric tons	Number	Metric tons	Metric tons	Number	Metric tons	Metric tons	Number	Metric tons	Metric tons	Number	Metric tons
333	2.69	2.00	1.35	10.38	1.00	10.38	16.38	7.40	2.21	13.91	7.60	1.83	43.36	18.00	2.41
345	-	-	-	2.15	0.80	2.68	-	-	-	-	-	-	2.15	0.80	2.68
346	-	-	-	9.40	3.20	2.94	-	-	-	-	-	-	9.40	3.20	2.94
347	-	-	-	-	-	-	0.33	0.80	0.41	-	-	-	0.33	0.80	0.41
348	-	-	-	14.12	3.80	3.72	-	-	-	-	-	-	14.12	3.80	3.72
349	5.15	8.00	0.64	41.32	5.00	8.26	27.50	6.00	4.58	-	-	-	73.97	19.00	3.89
350	6.46	3.80	1.70	65.58	16.20	4.05	0.99	1.00	0.99	5.41	0.80	6.76	78.44	21.80	3.60
351	-	-	-	14.77	2.80	5.27	4.75	1.60	2.97	10.54	2.40	4.39	30.06	6.80	4.42
352	-	-	-	20.56	4.00	5.14	26.48	3.20	8.28	-	-	-	47.04	7.20	6.53
354	-	-	-	-	-	-	-	-	-	0.75	0.80	0.94	0.75	0.80	0.94
356	-	-	-	-	-	-	4.54	0.80	5.67	-	-	-	4.54	0.80	5.67
357	-	-	-	-	-	-	4.84	2.40	2.02	1.02	0.80	1.28	5.86	3.20	1.83
358	-	-	-	-	-	-	5.30	0.80	6.63	11.86	5.60	2.12	17.16	6.40	2.68
359	-	-	-	3.12	1.00	3.12	3.73	1.60	2.33	25.93	7.00	3.70	32.78	9.60	3.41
360	0.13	0.80	0.16	-	-	-	15.85	5.00	3.17	29.08	10.00	2.91	45.06	15.80	2.85
361	-	-	-	4.15	1.00	4.15	8.16	3.00	2.72	5.33	1.80	2.96	17.64	5.80	3.04
420	10.00	11.80	0.85	17.59	4.80	3.66	20.92	4.60	4.55	5.11	2.60	1.97	53.62	23.80	2.25
421	2.33	5.80	0.40	34.10	15.00	2.27	85.23	19.40	4.39	1.77	2.00	0.88	123.43	42.20	2.92
422	36.51	26.40	1.38	38.95	19.80	1.97	68.02	17.20	3.95	55.10	14.20	3.88	198.58	77.60	2.56
423	32.83	29.00	1.13	111.73	52.60	2.12	215.04	55.20	3.90	60.12	26.80	2.24	419.72	163.60	2.56
424	-	-	-	10.20	4.00	2.55	14.37	3.60	3.99	-	-	-	24.57	7.60	3.23
425	-	-	-	-	-	-	105.22	19.80	5.31	4.30	2.00	2.15	109.52	21.80	5.02
426	-	-	-	1.35	1.00	1.35	79.72	12.40	6.43	8.24	2.80	2.94	89.31	16.20	5.51
427	-	-	-	27.83	7.00	3.98	60.48	16.20	3.73	14.95	7.00	2.14	103.26	30.20	3.42
428	1.25	3.40	0.37	21.79	6.20	3.51	20.78	10.00	2.08	68.74	21.20	3.24	112.56	40.80	2.76
429	3.51	6.40	0.55	10.43	4.00	2.61	4.69	1.60	2.93	-	-	-	18.63	12.00	1.55
442	-	-	-	2.28	1.60	1.42	-	-	-	2.54	0.80	3.17	4.82	2.40	2.01
443	-	-	-	21.59	8.20	2.63	5.00	2.00	2.50	0.70	0.80	0.87	27.29	11.00	2.48
444	-	-	-	1.46	0.80	1.83	-	-	-	-	-	-	1.46	0.80	1.83
445	-	-	-	-	-	-	15.42	2.60	5.93	-	-	-	15.42	2.60	5.93
449	-	-	-	6.87	2.40	2.86	4.29	1.60	2.68	-	-	-	11.16	4.00	2.79
450	0.37	0.80	0.46	25.37	7.60	3.34	9.90	1.80	5.50	2.57	1.00	2.57	38.21	11.20	3.41
451	0.72	0.80	0.90	11.78	4.80	2.45	5.61	2.60	2.16	25.63	7.40	3.46	43.74	15.60	2.80
452	6.60	5.20	1.27	36.26	11.20	3.24	36.85	8.60	4.28	18.42	8.20	2.25	98.13	33.20	2.96
453	-	-	-	0.59	1.00	0.59	50.49	18.40	2.74	14.36	3.00	4.79	65.44	22.40	2.92
454	-	-	-	2.76	1.80	1.53	34.48	6.60	5.22	8.39	2.40	3.50	45.63	10.80	4.22
455	-	-	-	31.87	14.80	2.15	47.94	11.60	4.13	21.69	5.60	3.87	101.50	32.00	3.17
456	-	-	-	-	-	-	3.52	2.00	1.76	-	-	-	3.52	2.00	1.76
457	0.35	0.80	0.44	12.75	4.20	3.04	9.00	3.40	2.65	1.15	1.00	1.15	23.25	9.40	2.47
458	-	-	-	-	-	-	16.39	3.00	5.46	-	-	-	16.39	3.00	5.46
459	-	-	-	-	-	-	24.10	4.00	6.03	-	-	-	24.10	4.00	6.03
460	-	-	-	-	-	-	18.62	4.80	3.88	-	-	-	18.62	4.80	3.88
461	-	-	-	-	-	-	9.92	2.00	4.96	-	-	-	9.92	2.00	4.96
462	-	-	-	-	-	-	10.78	2.00	5.39	-	-	-	10.78	2.00	5.39
463	-	-	-	-	-	-	6.37	1.00	6.37	-	-	-	6.37	1.00	6.37
520	-	-	-	-	-	-	-	-	-	10.39	3.80	2.73	10.39	3.80	2.73
521	47.53	23.00	2.07	3.06	4.00	0.77	22.14	2.00	11.07	7.62	1.00	7.62	80.35	30.00	2.68
522	-	-	-	7.05	1.00	7.05	-	-	-	-	-	-	7.05	1.00	7.05
523	-	-	-	-	-	-	-	-	-	2.72	2.00	1.36	2.72	2.00	1.36
524	-	-	-	-	-	-	2.83	1.00	2.83	10.06	2.00	5.03	12.89	3.00	4.30
526	-	-	-	-	-	-	21.89	2.00	10.95	53.61	7.00	7.66	75.50	9.00	8.39
528	6.17	5.00	1.23	-	-	-	-	-	-	-	-	-	6.17	5.00	1.23
561	-	-	-	9.58	2.80	3.42	4.49	1.80	2.49	3.85	0.80	4.81	17.92	5.40	3.32
562	-	-	-	-	-	-	7.26	2.80	2.59	-	-	-	7.26	2.80	2.59
571	-	-	-	9.15	6.00	1.53	15.09	1.80	8.38	6.16	1.00	6.16	30.40	8.80	3.45
Total	318.34	291.80	1.09	1,808.58	552.40	3.27	2,476.63	542.00	4.57	814.84	293.00	2.78	5,418.39	1,679.20	3.23

Appendix table 13.--Total catch (Y), standard effective trip (f), and catch per standard effective trip (Y/f) according to statistical areas, by quarters of the year, 1960

Area	First quarter			Second quarter			Third quarter			Fourth quarter			Annual		
	Y	f	Y/f	Y	f	Y/f	Y	f	Y/f	Y	f	Y/f	Y	f	Y/f
	Metric tons	Number	Metric tons	Metric tons	Number	Metric tons	Metric tons	Number	Metric tons	Metric tons	Number	Metric tons	Metric tons	Number	Metric tons
122	5.75	3.00	1.92	-	-	-	36.46	22.00	1.66	53.11	15.08	3.52	95.32	40.08	2.38
124	2.12	4.00	0.53	41.40	22.63	1.83	150.03	84.96	1.76	32.04	24.63	1.30	225.59	136.22	1.66
320	-	-	-	-	-	-	3.77	2.00	1.88	9.47	6.00	1.58	13.24	8.00	1.66
322	1.70	2.00	0.85	6.16	5.00	1.23	35.94	23.09	1.56	3.56	3.08	1.16	47.36	33.17	1.43
323	0.57	1.00	0.57	29.03	17.16	1.69	32.10	11.93	2.69	2.77	2.00	1.38	64.47	32.09	2.01
324	0.08	1.00	0.08	-	-	-	-	-	-	-	-	-	0.08	1.00	0.08
325	-	-	-	0.59	0.77	0.76	-	-	-	-	-	-	0.59	0.77	0.76
326	2.69	2.00	1.34	4.69	2.00	2.34	2.85	2.00	1.42	1.64	0.77	2.13	11.87	6.77	1.75
327	5.21	6.00	0.87	22.10	12.08	1.83	58.05	24.54	2.36	16.36	8.77	1.86	101.72	51.39	1.98
328	53.80	37.94	1.42	51.73	36.32	1.42	168.16	50.40	3.34	21.42	14.85	1.44	295.11	139.51	2.12
331	42.08	24.48	1.72	21.50	7.62	2.82	23.66	11.16	2.12	44.54	28.94	1.54	131.78	72.20	1.82
332	9.93	5.54	1.79	0.24	2.00	0.12	13.87	4.77	2.91	0.49	1.00	0.49	24.53	13.31	1.84
333	1.98	1.00	1.98	6.39	3.00	2.13	9.60	4.85	1.98	-	-	-	17.97	8.85	2.03
349	-	-	-	-	-	-	6.60	2.00	3.30	-	-	-	6.60	2.00	3.30
350	3.30	1.00	3.30	-	-	-	10.16	1.00	10.16	-	-	-	13.46	2.00	6.73
351	1.81	1.54	1.17	-	-	-	-	-	-	-	-	-	1.81	1.54	1.17
361	-	-	-	-	-	-	2.27	1.00	2.27	-	-	-	2.27	1.00	2.27
362	-	-	-	-	-	-	1.72	0.77	2.23	-	-	-	1.72	0.77	2.23
420	33.68	23.24	1.45	15.18	5.85	2.60	4.63	1.77	2.62	24.00	16.55	1.45	77.49	47.41	1.63
421	15.64	13.85	1.13	13.62	11.78	1.16	26.37	9.39	2.81	21.67	16.78	1.29	77.30	51.80	1.49
422	41.21	24.31	1.70	47.70	23.01	2.07	57.31	27.86	2.06	4.99	5.77	0.86	151.21	80.95	1.87
423	25.41	23.16	1.10	146.55	61.34	2.39	378.21	126.67	2.98	17.24	9.08	1.90	567.41	220.25	2.58
424	14.22	11.08	1.28	89.61	21.62	4.14	35.60	18.31	1.94	43.93	29.93	1.47	183.36	80.94	2.26
425	15.23	9.77	1.56	112.58	28.31	3.98	54.24	18.31	2.96	33.48	18.54	1.80	215.53	74.93	2.88
426	1.09	0.77	1.42	32.87	12.54	2.62	37.76	13.77	2.74	8.02	4.00	2.00	79.74	31.08	2.56
427	5.26	4.77	1.10	54.26	23.08	2.35	17.60	5.77	3.05	-	-	-	77.12	33.62	2.29
428	2.38	2.00	1.19	1.99	3.00	0.66	9.84	4.77	2.06	2.62	2.77	0.95	16.83	12.54	1.34
429	6.43	3.77	1.70	-	-	-	8.11	6.00	1.35	16.21	19.54	0.83	30.75	29.31	1.05
443	5.42	1.00	5.42	-	-	-	-	-	-	-	-	-	5.42	1.00	5.42
444	-	-	-	-	-	-	0.96	1.00	0.96	-	-	-	0.96	1.00	0.96
448	-	-	-	-	-	-	3.68	0.77	4.78	-	-	-	3.68	0.77	4.78
449	-	-	-	-	-	-	2.35	0.77	3.05	-	-	-	2.35	0.77	3.05
450	6.46	3.08	2.10	3.09	0.77	4.01	1.78	1.00	1.78	-	-	-	11.33	4.85	2.34
451	26.25	11.08	2.37	7.85	2.31	3.40	18.88	5.00	3.77	-	-	-	52.98	18.39	2.88
452	7.31	8.77	0.83	5.48	1.54	3.56	4.70	1.00	4.70	0.14	1.00	0.14	17.63	12.31	1.43
453	4.73	0.77	6.15	9.67	5.54	1.74	35.03	6.85	5.11	1.02	2.00	0.51	50.45	15.16	3.33
454	3.04	0.77	3.95	16.90	3.00	5.63	20.67	5.08	4.07	-	-	-	40.61	8.85	4.59
455	-	-	-	3.68	1.00	3.68	44.61	15.08	2.96	4.15	2.31	1.80	52.44	18.39	2.85
456	1.83	2.31	0.79	-	-	-	3.99	0.77	5.18	2.17	0.77	2.82	7.99	3.85	2.08
457	-	-	-	15.50	6.00	2.58	14.28	4.00	3.57	-	-	-	29.78	10.00	2.98
460	-	-	-	2.31	0.77	3.00	6.27	2.00	3.14	-	-	-	8.58	2.77	3.10
461	-	-	-	-	-	-	1.16	1.00	1.16	-	-	-	1.16	1.00	1.16
520	-	-	-	6.75	3.08	2.19	-	-	-	2.64	1.00	2.64	9.39	4.08	2.30
521	1.59	1.00	1.59	5.12	1.00	5.12	7.30	1.77	4.13	8.70	6.00	1.45	22.71	9.77	2.32
522	11.76	5.77	2.04	65.45	6.54	10.01	43.22	7.00	6.17	31.55	12.62	2.50	151.98	31.93	4.76
523	-	-	-	-	-	-	28.34	3.00	9.44	-	-	-	28.34	3.00	9.44
524	-	-	-	44.56	4.00	11.14	55.71	8.00	6.96	11.52	2.00	5.76	111.79	14.00	7.98
525	-	-	-	-	-	-	6.77	1.00	6.77	21.00	6.77	3.10	27.77	7.77	3.57
526	-	-	-	-	-	-	13.79	3.00	4.60	20.50	8.77	2.34	34.29	11.77	2.91
527	-	-	-	-	-	-	-	-	-	0.55	2.00	0.28	0.55	2.00	0.28
528	-	-	-	-	-	-	-	-	-	1.41	1.00	1.41	1.41	1.00	1.41
561	0.47	0.77	0.61	-	-	-	3.65	1.00	3.65	-	-	-	4.12	1.77	2.33
562	-	-	-	-	-	-	10.51	2.54	4.14	-	-	-	10.51	2.54	4.14
571	0.80	0.77	1.04	-	-	-	2.27	0.77	2.94	-	-	-	3.07	1.54	1.99
Total	361.23	243.31	1.48	884.55	334.66	2.64	1,514.83	551.49	2.75	462.91	274.32	1.69	3,223.52	1,403.78	2.30

Appendix table 14.--Total catch (Y), standard effective trip (f), and catch per standard effective trip (Y/f) according to statistical areas, by quarters of the year, 1961

Area	First quarter			Second quarter			Third quarter			Fourth quarter			Annual		
	Y	f	Y/f	Y	f	Y/f	Y	f	Y/f	Y	f	Y/f	Y	f	Y/f
	Metric tons	Number	Metric tons	Metric tons	Number	Metric tons	Metric tons	Number	Metric tons	Metric tons	Number	Metric tons	Metric tons	Number	Metric tons
122	77.08	19.46	3.96	-	-	-	-	-	-	0.42	0.73	0.58	77.50	20.19	3.85
123	-	-	-	-	-	-	0.08	1.00	0.08	-	-	-	0.08	1.00	0.08
124	44.64	30.33	1.47	112.67	80.74	1.40	301.12	109.15	2.76	50.80	35.14	1.44	509.23	255.36	1.99
196	1.13	1.00	1.13	-	-	-	-	-	-	-	-	-	1.13	1.00	1.13
320	-	-	-	-	-	-	-	-	-	0.20	0.73	0.27	0.20	0.73	0.27
321	0.30	1.00	0.30	-	-	-	-	-	-	-	-	-	0.30	1.00	0.30
322	64.62	10.92	5.92	95.05	13.73	6.92	112.97	36.73	3.08	21.39	9.00	2.38	294.03	70.38	4.18
323	-	-	-	224.81	46.87	4.80	182.24	51.22	3.56	3.00	3.00	1.00	410.05	101.09	4.06
325	-	-	-	5.05	1.00	5.05	-	-	-	-	-	-	5.05	1.00	5.05
326	-	-	-	7.45	3.00	2.48	2.24	1.00	2.24	-	-	-	9.69	4.00	2.42
327	18.95	13.19	1.44	17.37	7.00	2.48	2.81	5.00	0.56	7.04	9.00	0.78	46.17	34.19	1.35
328	68.13	32.87	2.07	33.53	20.06	1.67	70.02	28.33	2.47	43.94	23.49	1.87	215.62	104.75	2.06
331	19.08	22.76	0.84	2.72	2.46	1.10	9.36	7.57	1.24	19.50	13.57	1.44	50.66	46.36	1.09
332	-	-	-	37.34	8.57	4.36	40.76	11.46	3.56	11.98	4.65	2.58	90.08	24.68	3.65
333	-	-	-	13.53	3.73	3.63	5.38	2.00	2.69	5.01	3.00	1.67	23.92	8.73	2.74
348	-	-	-	-	-	-	8.24	3.00	2.75	-	-	-	8.24	3.00	2.75
349	-	-	-	-	-	-	-	-	-	6.17	1.00	6.17	6.17	1.00	6.17
350	-	-	-	-	-	-	4.43	2.00	2.21	-	-	-	4.43	2.00	2.21
351	-	-	-	-	-	-	-	-	-	12.27	6.73	1.82	12.27	6.73	1.82
357	-	-	-	66.52	6.73	9.88	-	-	-	-	-	-	66.52	6.73	9.88
358	-	-	-	10.00	1.00	10.00	28.69	5.00	5.74	-	-	-	38.69	6.00	6.45
359	-	-	-	15.44	2.19	7.05	7.22	1.73	4.17	-	-	-	22.66	3.92	5.78
360	-	-	-	26.29	6.19	4.25	123.16	24.65	5.00	-	-	-	149.45	30.84	4.84
361	-	-	-	61.36	4.73	12.97	-	-	-	-	-	-	61.36	4.73	12.97
362	-	-	-	40.22	3.46	11.62	-	-	-	-	-	-	40.22	3.46	11.62
363	-	-	-	14.65	1.00	14.65	-	-	-	-	-	-	14.65	1.00	14.65
372	-	-	-	-	-	-	32.87	5.84	5.63	-	-	-	32.87	5.84	5.63
420	12.90	13.57	0.95	1.50	2.19	0.68	0.75	1.73	0.43	10.38	4.00	2.60	25.53	21.49	1.19
421	13.05	11.65	1.12	12.03	5.38	2.24	1.41	1.73	0.82	7.71	5.46	1.41	34.20	24.22	1.41
422	22.27	17.76	1.25	29.44	11.30	2.60	5.19	1.73	3.00	6.00	5.46	1.10	62.90	36.25	1.74
423	80.78	64.79	1.25	89.36	41.52	2.15	54.83	24.87	2.20	49.67	28.68	1.73	274.64	159.86	1.72
424	35.76	14.84	2.41	82.99	36.49	2.27	90.43	30.49	2.96	27.22	12.46	2.18	236.40	94.28	2.51
425	36.24	8.38	4.32	270.76	56.03	4.83	200.58	37.87	5.30	15.31	10.19	1.50	522.89	112.47	4.65
426	4.13	3.00	1.38	103.32	28.95	3.57	170.49	38.41	4.44	-	-	-	277.94	70.36	3.95
427	0.79	2.00	0.39	51.49	16.95	3.04	101.67	27.03	3.76	2.02	2.00	1.01	155.97	47.98	3.25
428	9.75	6.19	1.57	97.22	20.49	4.74	65.13	13.46	4.84	-	-	-	172.10	40.14	4.29
429	1.21	2.73	0.44	13.63	4.92	2.77	0.05	1.00	0.05	13.30	4.19	3.17	28.19	12.84	2.20
443	-	-	-	10.12	2.00	5.06	0.62	0.73	0.84	-	-	-	10.74	2.73	3.93
445	-	-	-	0.42	0.73	0.58	-	-	-	-	-	-	0.42	0.73	0.58
449	-	-	-	-	-	-	-	-	-	4.27	3.00	1.42	4.27	3.00	1.42
450	-	-	-	-	-	-	-	-	-	2.08	2.00	1.04	2.08	2.00	1.04
451	-	-	-	7.14	2.00	3.57	-	-	-	3.22	1.46	2.20	10.36	3.46	2.99
452	1.02	1.00	1.02	1.86	0.73	2.55	20.16	6.73	3.00	14.15	7.19	1.97	37.19	15.65	2.38
453	3.43	2.46	1.39	2.13	0.73	2.92	1.69	1.00	1.69	4.21	2.00	2.10	11.46	6.19	1.85
455	4.81	5.46	0.88	58.34	17.76	3.28	9.20	3.00	3.07	15.15	4.46	3.40	87.50	30.68	2.85
456	3.42	2.00	1.71	2.02	1.73	1.16	11.00	1.73	6.36	-	-	-	16.44	5.46	3.01
457	7.35	2.00	3.67	8.16	2.00	4.08	219.61	31.92	6.88	-	-	-	235.12	35.92	6.54
459	-	-	-	-	-	-	0.95	0.73	1.30	-	-	-	0.95	0.73	1.30
460	-	-	-	4.99	2.46	2.03	15.85	2.46	6.44	-	-	-	20.84	4.92	4.24
461	23.27	10.00	2.33	27.35	9.65	2.83	4.03	0.73	5.52	0.84	0.73	1.16	55.49	21.11	2.63
462	-	-	-	21.65	6.00	3.61	-	-	-	-	-	-	21.65	6.00	3.61
520	-	-	-	22.38	5.46	4.10	-	-	-	-	-	-	22.38	5.46	4.10
521	19.29	6.00	3.22	13.75	3.00	4.58	0.91	1.00	0.91	11.78	6.46	1.82	45.73	16.46	2.78
522	-	-	-	-	-	-	-	-	-	5.05	0.73	6.92	5.05	0.73	6.92
523	17.76	6.00	2.96	-	-	-	6.02	1.00	6.02	-	-	-	23.78	7.00	3.40
524	16.48	8.73	1.89	129.03	28.38	4.55	2.49	0.73	3.41	-	-	-	148.00	37.84	3.91
525	-	-	-	13.07	2.00	6.54	-	-	-	16.28	5.00	3.26	29.35	7.00	4.19
526	7.02	5.00	1.40	-	-	-	-	-	-	17.80	7.00	2.54	24.82	12.00	2.07
527	-	-	-	-	-	-	-	-	-	0.67	1.00	0.67	0.67	1.00	0.67
528	-	-	-	-	-	-	-	-	-	2.88	2.00	1.44	2.88	2.00	1.44

Appendix table 14.--Total catch (Y), standard effective trip (f), and catch per standard effective trip (Y/f) according to statistical areas, by quarters of the year, 1961--Continued

Area	First quarter			Second quarter			Third quarter			Fourth quarter			Annual		
	Y	f	Y/f	Y	f	Y/f	Y	f	Y/f	Y	f	Y/f	Y	f	Y/f
	Metric tons	Number	Metric tons	Metric tons	Number	Metric tons	Metric tons	Number	Metric tons	Metric tons	Number	Metric tons	Metric tons	Number	Metric tons
561	-	-	-	6.06	1.00	6.06	2.48	0.73	3.39	-	-	-	8.54	1.73	4.94
562	-	-	-	-	-	-	1.09	0.73	1.50	5.19	0.73	7.11	6.28	1.46	4.30
563	-	-	-	-	-	-	-	-	-	1.52	1.00	1.52	1.52	1.00	1.52
571	46.30	15.84	2.92	19.18	4.00	4.80	1.65	0.73	2.26	0.64	0.73	0.88	67.77	21.30	3.18
572	-	-	-	11.67	3.92	2.98	-	-	-	-	-	-	11.67	3.92	2.98
Total	660.96	340.93	1.94	1,895.06	530.23	3.57	1,919.87	527.95	3.64	419.06	227.97	1.84	4,894.95	1,627.08	3.01

Appendix table 15.--Total catch (Y), standard effective trip (f), and catch per standard effective trip (Y/f) according to statistical areas, by quarters of the year, 1962

Area	First quarter			Second quarter			Third quarter			Fourth quarter			Annual		
	Y	f	Y/f	Y	f	Y/f	Y	f	Y/f	Y	f	Y/f	Y	f	Y/f
	Metric tons	Number	Metric tons	Metric tons	Number	Metric tons	Metric tons	Number	Metric tons	Metric tons	Number	Metric tons	Metric tons	Number	Metric tons
121	3.60	1.00	3.60	-	-	-	-	-	-	4.64	4.00	1.16	8.24	5.00	1.65
122	24.49	8.00	3.06	61.51	24.68	2.49	2.08	0.68	3.06	7.36	1.36	5.41	95.44	34.72	2.75
124	19.79	21.48	0.92	157.60	74.36	2.12	109.48	78.32	1.40	13.64	14.28	0.95	300.51	188.44	1.59
320	-	-	-	-	-	-	0.94	0.68	1.38	-	-	-	0.94	0.68	1.38
321	-	-	-	-	-	-	-	-	-	1.05	0.68	1.54	1.05	0.68	1.54
322	7.42	4.00	1.85	57.64	20.76	2.78	71.74	17.20	4.17	0.95	1.00	0.95	137.75	42.96	3.21
323	-	-	-	63.45	17.00	3.73	12.31	6.08	2.02	5.21	5.00	1.04	80.97	28.08	2.88
324	-	-	-	-	-	-	6.24	4.00	1.56	-	-	-	6.24	4.00	1.56
325	-	-	-	-	-	-	0.84	0.68	1.23	-	-	-	0.84	0.68	1.24
327	1.33	3.00	0.44	21.94	7.00	3.13	44.60	14.00	3.18	3.23	5.00	0.64	71.10	29.00	2.45
328	30.45	29.56	1.03	88.16	34.52	2.55	109.81	38.56	2.91	42.04	32.52	1.29	270.46	135.16	2.00
331	6.24	5.40	1.16	4.45	4.04	1.10	5.92	3.72	1.59	13.20	8.40	1.57	29.81	21.56	1.38
332	26.49	11.80	2.24	7.07	4.08	1.73	7.57	5.04	1.50	4.06	2.36	1.72	45.19	23.28	1.94
333	16.82	3.72	4.52	16.80	3.00	5.60	3.54	1.00	3.54	-	-	-	37.16	7.72	4.81
345	-	-	-	-	-	-	1.45	1.00	1.45	-	-	-	1.45	1.00	1.45
350	-	-	-	1.99	2.00	1.00	27.18	4.00	6.80	-	-	-	29.17	6.00	4.86
351	0.92	0.68	1.35	3.70	1.36	2.72	-	-	-	-	-	-	4.62	2.04	2.26
358	-	-	-	5.80	1.00	5.80	11.34	2.00	5.67	-	-	-	17.14	3.00	5.71
359	-	-	-	-	-	-	10.92	2.00	5.46	-	-	-	10.92	2.00	5.46
360	1.97	4.00	0.49	5.53	2.00	2.76	5.05	1.00	5.05	-	-	-	12.55	7.00	1.79
363	-	-	-	12.13	1.36	8.92	-	-	-	-	-	-	12.13	1.36	8.92
372	-	-	-	12.23	2.00	6.11	-	-	-	-	-	-	12.23	2.00	6.11
420	10.85	8.12	1.34	2.52	2.04	1.23	9.24	1.36	6.79	21.23	13.44	1.58	43.84	24.96	1.76
421	8.77	4.00	2.19	15.80	8.80	1.79	15.90	7.36	2.16	11.02	8.80	1.25	51.49	28.96	1.78
422	7.29	7.04	1.03	26.84	7.08	3.79	27.65	12.08	2.29	13.92	6.76	2.06	75.70	32.96	2.30
423	59.95	36.20	1.66	236.09	80.76	2.92	141.17	58.24	2.42	76.92	40.28	1.91	514.13	215.48	2.38
424	62.60	26.32	2.38	60.49	12.72	4.76	52.08	17.76	2.93	45.72	17.16	2.66	220.89	73.96	2.99
425	37.45	16.40	2.28	38.76	8.04	4.82	171.45	28.76	5.96	6.58	2.04	3.22	254.24	55.24	4.60
426	18.44	12.00	1.54	85.12	17.68	4.81	106.39	27.12	3.92	-	-	-	209.95	56.80	3.70
427	33.47	14.40	2.32	45.43	11.72	3.88	184.53	37.60	4.91	-	-	-	263.43	63.72	4.13
428	28.46	14.68	1.94	4.08	4.68	0.87	54.39	16.16	3.36	50.66	22.04	2.30	137.59	57.56	2.39
429	1.97	3.00	0.66	-	-	-	-	-	-	14.69	11.44	1.28	16.66	14.44	1.15
443	1.13	1.00	1.13	-	-	-	-	-	-	-	-	-	1.13	1.00	1.13
449	-	-	-	-	-	-	3.29	1.00	3.29	-	-	-	3.29	1.00	3.29
450	-	-	-	4.29	2.00	2.14	1.67	0.68	2.46	-	-	-	5.96	2.68	2.22
451	0.38	0.68	0.56	1.83	2.00	0.92	4.45	2.68	1.66	2.53	0.68	3.72	9.19	6.04	1.52
452	2.38	3.00	0.79	1.99	1.00	1.99	6.12	3.00	2.04	6.48	3.00	2.16	16.97	10.00	1.70
453	-	-	-	10.84	4.68	2.32	1.28	0.68	1.89	10.38	6.00	1.73	22.50	11.36	1.98
454	-	-	-	8.05	5.68	1.42	13.94	5.68	2.45	-	-	-	21.99	11.36	1.94
455	6.17	2.72	2.27	137.83	27.68	4.98	27.28	8.72	3.13	5.18	1.36	3.81	176.46	40.48	4.36

Appendix table 15.--Total catch (Y), standard effective trip (f), and catch per standard effective trip (Y/f) according to statistical areas, by quarters of the year, 1962--Continued

Area	First quarter			Second quarter			Third quarter			Fourth quarter			Annual		
	Y	f	Y/f	Y	f	Y/f	Y	f	Y/f	Y	f	Y/f	Y	f	Y/f
	Metric tons	Number	Metric tons	Metric tons	Number	Metric tons	Metric tons	Number	Metric tons	Metric tons	Number	Metric tons	Metric tons	Number	Metric tons
456	1.05	1.36	0.77	3.06	2.00	1.53	-	-	-	-	-	-	4.11	3.36	1.22
457	1.11	2.00	0.56	32.84	7.68	4.28	12.75	4.04	3.16	-	-	-	46.70	13.72	3.40
458	-	-	-	-	-	-	31.82	5.00	6.36	-	-	-	31.82	5.00	6.36
460	-	-	-	45.36	8.00	5.67	34.84	3.68	9.47	-	-	-	80.20	11.68	6.87
461	-	-	-	20.87	3.00	6.96	17.50	1.68	10.42	-	-	-	38.37	4.68	8.20
465	-	-	-	-	-	-	12.12	4.68	2.59	-	-	-	12.12	4.68	2.59
466	-	-	-	-	-	-	5.83	2.00	2.91	-	-	-	5.83	2.00	2.92
468	-	-	-	-	-	-	11.00	3.00	3.67	-	-	-	11.00	3.00	3.67
520	-	-	-	50.90	5.04	10.10	21.64	5.00	4.33	7.94	3.36	2.36	80.48	13.40	6.00
521	1.36	1.00	1.36	34.52	5.68	6.08	24.09	5.00	4.82	11.54	5.00	2.31	71.51	16.68	4.29
522	10.70	1.00	10.70	69.01	10.36	6.66	4.27	1.36	3.14	7.90	2.00	3.95	91.88	14.72	6.24
523	16.44	4.00	4.11	17.01	3.00	5.67	-	-	-	-	-	-	33.45	7.00	4.78
524	-	-	-	112.81	17.00	6.64	7.81	3.00	2.60	13.31	6.04	2.20	133.93	26.04	5.14
525	0.92	1.00	0.92	16.10	3.00	5.36	2.24	2.00	1.12	5.81	2.00	2.91	25.07	8.00	3.13
526	1.77	1.00	1.77	52.37	5.40	9.70	13.75	1.68	8.19	-	-	-	67.89	8.08	8.40
527	-	-	-	8.63	2.00	4.31	-	-	-	-	-	-	8.63	2.00	4.32
528	-	-	-	-	-	-	-	-	-	4.98	3.00	1.66	4.98	3.00	1.66
560	-	-	-	17.12	2.00	8.56	-	-	-	-	-	-	17.12	2.00	8.56
561	-	-	-	5.67	1.00	5.67	-	-	-	-	-	-	5.67	1.00	5.67
562	5.44	2.04	2.66	4.57	0.68	6.72	2.94	1.00	2.94	-	-	-	12.95	3.72	3.48
571	5.79	2.72	2.13	49.93	10.12	4.93	14.25	5.36	2.66	10.06	1.36	7.40	80.03	19.56	4.09
574	-	-	-	-	-	-	22.78	1.00	22.78	-	-	-	22.78	1.00	22.78
582	-	-	-	4.83	1.00	4.83	-	-	-	-	-	-	4.83	1.00	4.83
Total	463.41	258.32	1.79	1,745.56	482.68	3.62	1,491.47	458.32	3.25	422.23	230.36	1.83	4,122.67	1,429.68	2.88

Appendix table 16.--Total catch (Y), standard effective trip (f), and catch per standard effective trip (Y/f) according to statistical areas, by quarters of the year, 1963

Area	First quarter			Second quarter			Third quarter			Fourth quarter			Annual		
	Y	f	Y/f	Y	f	Y/f	Y	f	Y/f	Y	f	Y/f	Y	f	Y/f
	Metric tons	Number	Metric tons	Metric tons	Number	Metric tons	Metric tons	Number	Metric tons	Metric tons	Number	Metric tons	Metric tons	Number	Metric tons
122	17.21	17.64	0.98	61.53	26.48	2.32	58.41	24.20	2.41	1.26	3.84	0.33	138.41	72.16	1.92
123	-	-	-	-	-	-	20.30	6.00	3.38	-	-	-	20.30	6.00	3.38
124	0.44	2.64	0.17	105.73	43.32	2.44	111.55	32.16	3.47	16.76	19.04	0.88	234.48	97.16	2.41
125	-	-	-	-	-	-	93.67	35.00	2.68	-	-	-	93.67	35.00	2.68
321	1.42	0.64	2.22	7.83	8.00	0.98	-	-	-	-	-	-	9.25	8.64	1.07
322	1.82	0.64	2.84	13.95	5.00	2.79	10.71	8.00	1.34	1.35	2.00	0.68	27.83	15.64	1.78
323	9.76	8.64	1.13	7.90	7.00	1.13	95.87	26.28	3.65	-	-	-	113.53	41.92	2.71
324	-	-	-	-	-	-	40.04	9.64	4.15	-	-	-	40.04	9.64	4.15
326	-	-	-	4.02	0.64	6.28	0.70	1.00	0.70	-	-	-	4.72	1.64	2.88
327	3.95	4.00	0.99	63.96	37.68	1.70	28.59	7.64	3.74	1.14	1.00	1.14	97.64	50.32	1.94
328	40.44	26.32	1.54	82.58	36.88	2.24	160.32	55.08	2.91	57.67	50.52	1.14	341.01	168.80	2.02
331	21.10	13.40	1.57	7.50	8.12	0.92	10.72	7.48	1.43	28.00	19.68	1.42	67.32	48.68	1.38
332	68.02	28.24	2.41	2.74	1.00	2.74	99.34	22.80	4.36	19.67	13.04	1.51	189.77	65.08	2.92
333	-	-	-	-	-	-	17.33	5.00	3.46	0.14	1.00	0.14	17.47	6.00	2.91
345	-	-	-	12.46	2.56	4.87	-	-	-	-	-	-	12.46	2.56	4.87
346	-	-	-	4.62	2.00	2.31	-	-	-	-	-	-	4.62	2.00	2.31
349	1.07	0.64	1.67	7.72	2.00	3.86	4.80	3.00	1.60	-	-	-	13.59	5.64	2.41
350	-	-	-	6.79	3.00	2.26	3.92	2.00	1.96	4.03	2.00	2.02	14.74	7.00	2.10
351	-	-	-	4.06	2.28	1.78	9.19	2.64	3.48	0.92	1.00	0.92	14.17	5.92	2.39
359	-	-	-	3.52	2.00	1.76	-	-	-	-	-	-	3.52	2.00	1.76

Appendix table 16.--Total catch (Y), standard effective trip (f), and catch per standard effective trip (Y/f) according to statistical areas, by quarters of the year, 1963--Continued

Area	First quarter			Second quarter			Third quarter			Fourth quarter			Annual		
	Y	f	Y/f	Y	f	Y/f	Y	f	Y/f	Y	f	Y/f	Y	f	Y/f
	Metric tons	Number	Metric tons	Metric tons	Number	Metric tons	Metric tons	Number	Metric tons	Metric tons	Number	Metric tons	Metric tons	Number	Metric tons
360	2.79	1.00	2.79	6.02	3.00	2.00	22.87	4.56	5.02	0.63	0.64	0.98	32.31	9.20	3.51
361	11.14	2.00	5.57	1.64	1.00	1.64	26.50	4.64	5.71	-	-	-	39.28	7.64	5.14
362	-	-	-	-	-	-	14.47	2.28	6.34	-	-	-	14.47	2.28	6.34
363	-	-	-	-	-	-	5.18	1.92	2.70	-	-	-	5.18	1.92	2.70
420	3.28	2.92	1.12	5.56	2.56	2.17	7.57	3.84	1.97	8.54	9.12	0.94	24.95	18.44	1.35
421	0.03	1.00	0.03	9.26	8.04	1.15	3.78	3.64	1.04	25.48	15.72	1.62	38.55	28.40	1.36
422	17.04	4.92	3.46	14.39	6.84	2.10	18.81	3.84	4.90	15.80	16.60	0.95	66.04	32.20	2.05
423	25.01	23.68	1.06	112.29	90.60	1.24	17.14	14.68	1.17	46.95	29.48	1.59	201.39	158.44	1.27
424	3.94	4.64	0.85	44.15	24.60	1.79	30.52	10.48	2.91	5.77	6.28	0.92	84.38	46.00	1.83
425	2.02	3.64	0.56	39.21	18.96	2.07	167.76	36.96	4.54	4.83	2.64	1.83	213.82	62.20	3.44
426	7.96	7.64	1.04	6.00	2.28	2.63	130.08	35.60	3.65	2.23	1.00	2.23	146.27	46.52	3.14
427	31.77	14.40	2.20	5.12	6.64	0.77	148.18	33.72	4.39	0.40	2.00	0.20	185.47	56.76	3.27
428	52.23	34.88	1.50	8.68	7.64	1.14	22.43	8.20	2.74	3.90	3.20	1.22	87.24	53.92	1.62
429	1.44	1.64	0.88	0.36	0.64	0.57	1.43	0.64	2.24	12.99	8.68	1.50	16.22	11.60	1.40
443	-	-	-	17.67	11.64	1.52	5.49	1.28	4.29	4.56	2.00	2.28	27.72	14.92	1.86
444	-	-	-	-	-	-	27.98	6.00	4.66	-	-	-	27.98	6.00	4.66
448	-	-	-	-	-	-	5.00	0.64	7.81	-	-	-	5.00	0.64	7.81
450	1.25	2.00	0.62	4.71	2.00	2.35	-	-	-	3.83	1.28	3.00	9.79	5.28	1.85
451	3.64	5.00	0.73	10.70	5.00	2.14	2.45	2.28	1.07	8.43	7.28	1.16	25.22	19.56	1.29
452	3.87	1.64	2.36	8.40	4.64	1.81	6.46	2.28	2.83	10.22	6.28	1.63	28.95	14.84	1.95
453	-	-	-	14.68	6.20	2.37	4.63	0.64	7.23	0.71	0.64	1.11	20.02	7.48	2.68
454	-	-	-	-	-	-	6.13	1.28	4.79	9.49	3.00	3.16	15.62	4.28	3.65
455	-	-	-	10.88	7.84	1.39	0.76	0.64	1.18	1.43	2.28	0.63	13.07	10.76	1.21
456	-	-	-	8.84	3.28	2.70	8.18	2.64	3.10	0.62	0.64	0.97	17.64	6.56	2.69
457	9.12	5.00	1.82	1.60	1.00	1.60	185.61	29.48	6.30	10.68	3.00	3.56	207.01	38.48	5.38
458	-	-	-	-	-	-	14.56	3.00	4.85	-	-	-	14.56	3.00	4.85
459	-	-	-	22.08	5.64	3.92	70.91	15.64	4.53	-	-	-	92.99	21.28	4.37
460	-	-	-	28.34	8.64	3.28	64.56	14.56	4.43	-	-	-	92.90	23.20	4.00
461	-	-	-	15.28	2.00	7.64	19.58	3.64	5.38	0.81	1.00	0.81	35.67	6.64	5.37
462	-	-	-	-	-	-	59.50	8.00	7.44	1.64	1.00	1.64	61.14	9.00	6.79
463	-	-	-	-	-	-	46.84	3.56	13.16	-	-	-	46.84	3.56	13.16
464	-	-	-	0.88	1.00	0.88	64.26	7.00	9.18	-	-	-	65.14	8.00	8.14
465	-	-	-	-	-	-	10.53	1.00	10.53	-	-	-	10.53	1.00	10.53
520	1.96	1.00	1.96	-	-	-	-	-	-	5.00	0.64	7.81	6.96	1.64	4.24
521	9.74	4.64	2.10	-	-	-	-	-	-	21.81	6.64	3.28	31.55	11.28	2.80
522	-	-	-	-	-	-	-	-	-	17.38	3.00	5.79	17.38	3.00	5.79
524	-	-	-	-	-	-	0.54	0.64	0.85	10.55	3.00	3.52	11.09	3.64	3.05
525	-	-	-	-	-	-	-	-	-	0.75	0.64	1.18	0.75	0.64	1.17
526	-	-	-	14.88	9.00	0.88	-	-	-	1.18	0.64	1.85	16.06	9.64	1.66
528	-	-	-	-	-	-	-	-	-	4.26	4.00	1.06	4.26	4.00	1.06
571	0.93	1.00	0.93	4.28	1.00	1.65	18.82	1.92	9.80	3.49	1.00	3.49	27.52	4.92	5.59
572	-	-	-	12.25	3.00	4.28	31.35	5.00	6.27	-	-	-	43.60	8.00	5.45
Total	354.39	225.44	1.57	825.06	432.64	1.91	2,036.32	524.04	3.88	375.30	256.44	1.46	3,591.07	1,438.56	2.50

Appendix table 17.--Total catch (Y), standard effective trip (f), and catch per standard effective trip (Y/f) according to statistical areas, by quarters of the year, 1964

Area	First quarter			Second quarter			Third quarter			Fourth quarter			Annual		
	Y	f	Y/f	Y	f	Y/f	Y	f	Y/f	Y	f	Y/f	Y	f	Y/f
	Metric tons	Number	Metric tons	Metric tons	Number	Metric tons	Metric tons	Number	Metric tons	Metric tons	Number	Metric tons	Metric tons	Number	Metric tons
122	3.84	5.56	0.69	12.87	13.68	0.94	11.12	10.64	1.04	7.49	9.12	0.82	35.32	39.00	0.90
124	12.68	19.08	0.66	102.99	70.76	1.46	219.05	106.36	2.06	53.76	44.52	1.21	388.48	240.72	1.61
125	9.61	12.92	0.74	-	-	-	-	-	-	-	-	-	9.61	12.92	0.74
321	0.92	0.76	1.21	-	-	-	-	-	-	-	-	-	0.92	0.76	1.21
322	-	-	-	25.87	7.00	3.70	84.67	18.00	4.70	1.30	3.00	0.43	111.84	28.00	3.99

Appendix table 17.--Total catch (Y), standard effective trip (f), and catch per standard effective trip (Y/f) according to statistical areas, by quarters of the year, 1964--Continued

Area	First quarter			Second quarter			Third quarter			Fourth quarter			Annual		
	Y	f	Y/f	Y	f	Y/f	Y	f	Y/f	Y	f	Y/f	Y	f	Y/f
	Metric tons	Number	Metric tons	Metric tons	Number	Metric tons	Metric tons	Number	Metric tons	Metric tons	Number	Metric tons	Metric tons	Number	Metric tons
323	-	-	-	34.06	18.00	1.89	36.60	16.00	2.29	3.36	3.00	1.12	74.02	37.00	2.00
324	-	-	-	-	-	-	4.83	1.00	4.83	-	-	-	4.83	1.00	4.83
327	4.08	4.00	1.02	30.37	11.00	2.76	1.82	1.00	1.82	8.42	4.76	1.77	44.69	20.76	2.15
328	65.53	50.96	1.28	16.91	14.28	1.19	37.57	22.80	1.65	75.41	47.00	1.60	195.42	135.04	1.45
331	17.12	15.56	1.10	5.01	4.80	1.04	28.13	12.32	2.28	9.08	6.56	1.38	59.34	39.24	1.51
332	0.16	0.76	0.21	43.88	18.16	2.42	210.20	43.68	4.81	10.13	2.28	4.44	264.37	64.88	4.07
333	-	-	-	-	-	-	186.01	36.04	5.16	-	-	-	186.01	36.04	5.16
346	-	-	-	-	-	-	1.74	1.00	1.74	2.22	1.00	2.22	3.96	2.00	1.98
349	2.17	1.00	2.17	-	-	-	-	-	-	1.05	0.76	1.38	3.22	1.76	1.83
350	8.72	5.52	1.58	5.74	2.28	2.52	0.58	1.00	0.58	14.86	6.80	2.18	29.90	15.60	1.92
351	21.76	10.60	2.05	10.00	6.08	1.64	33.37	12.88	2.59	6.55	3.28	2.00	71.68	32.84	2.18
352	-	-	-	7.50	1.00	7.50	-	-	-	-	-	-	7.50	1.00	7.50
359	-	-	-	25.73	2.00	12.86	24.50	5.04	4.86	-	-	-	50.23	7.04	7.13
360	-	-	-	12.77	3.52	3.63	50.72	10.28	4.93	-	-	-	63.49	13.80	4.60
361	-	-	-	0.57	1.00	0.57	74.03	15.76	4.70	-	-	-	74.60	16.76	4.45
362	-	-	-	0.43	1.00	0.43	68.75	9.00	7.64	1.41	2.00	0.70	70.59	12.00	5.88
363	-	-	-	-	-	-	11.20	1.76	6.36	-	-	-	11.20	1.76	6.36
420	7.72	5.00	1.54	3.60	3.00	1.20	23.94	10.04	2.38	7.48	2.52	2.97	42.74	20.56	2.08
421	16.21	12.52	1.30	18.71	9.52	1.96	66.45	24.96	2.66	19.71	9.08	2.17	121.08	56.08	2.16
422	30.31	24.36	1.24	63.07	39.44	1.60	64.85	24.92	2.60	41.42	16.56	2.50	199.65	105.28	1.90
423	130.77	73.40	1.78	306.27	165.72	1.85	114.70	48.00	2.39	93.32	46.76	2.00	645.06	333.88	1.93
424	40.75	24.84	3.47	3.91	2.00	1.95	16.77	9.08	1.85	9.07	2.76	3.28	70.50	38.68	1.82
425	13.64	6.56	2.08	18.57	12.00	1.55	3.91	1.76	2.22	26.95	19.00	1.42	63.07	39.32	1.60
426	1.66	2.00	0.83	15.38	3.76	4.09	13.09	6.28	2.08	2.56	1.52	1.69	32.69	13.56	2.41
427	1.62	1.76	0.92	22.15	5.28	4.19	66.32	12.80	5.18	0.83	1.00	0.83	90.92	20.84	4.36
428	6.54	7.60	0.86	5.69	4.04	1.41	12.31	6.04	2.49	11.29	7.04	1.60	35.83	24.72	1.04
429	1.93	2.00	0.96	0.18	1.00	0.18	0.43	0.76	0.57	4.69	1.52	3.08	7.23	5.28	1.37
441	-	-	-	-	-	-	17.80	6.00	2.97	-	-	-	17.80	6.00	2.97
442	-	-	-	-	-	-	10.10	1.00	10.10	-	-	-	10.10	1.00	10.10
443	1.84	0.76	2.42	1.66	2.52	0.66	27.05	7.00	3.86	6.64	5.76	1.15	37.19	16.04	2.32
444	-	-	-	1.12	0.76	1.47	27.70	6.00	4.62	2.57	1.00	2.57	31.39	7.76	4.04
445	-	-	-	-	-	-	12.66	2.00	6.33	2.46	2.00	1.23	15.12	4.00	3.78
449	-	-	-	-	-	-	3.91	1.00	3.91	2.58	1.00	2.58	6.49	2.00	3.24
450	-	-	-	-	-	-	32.57	6.52	5.00	6.41	2.76	2.32	38.98	9.28	4.20
451	5.68	3.00	1.90	24.02	8.04	2.99	62.54	17.60	3.55	32.10	11.80	2.72	124.34	40.44	3.07
452	9.10	3.28	2.77	24.80	7.76	3.20	70.77	18.64	3.80	14.67	9.56	1.53	119.34	39.24	3.04
453	3.41	2.00	1.71	18.10	11.80	1.53	90.34	22.64	3.99	17.96	10.04	1.79	129.81	46.48	2.79
454	2.39	1.00	2.39	3.78	3.28	1.15	57.80	13.04	4.43	25.90	8.52	3.04	89.87	25.84	3.48
455	20.92	8.80	2.38	10.42	6.76	1.54	48.76	11.04	4.42	17.47	7.76	2.25	97.57	34.36	2.84
456	2.88	1.76	1.64	6.98	5.00	1.40	-	-	-	0.29	1.00	0.29	10.15	7.76	1.31
457	-	-	-	19.17	7.28	2.63	39.03	10.04	3.89	-	-	-	58.20	17.32	3.36
458	-	-	-	-	-	-	11.97	3.00	3.99	-	-	-	11.97	3.00	3.99
460	-	-	-	0.92	2.00	0.46	23.33	4.76	4.90	-	-	-	24.25	6.76	3.59
520	-	-	-	-	-	-	14.17	5.00	2.83	11.58	4.00	2.89	25.75	9.00	2.86
521	6.15	2.00	3.07	-	-	-	1.04	1.00	1.04	2.28	3.00	0.76	9.47	6.00	1.58
522	5.48	2.00	2.74	-	-	-	0.90	1.00	0.90	1.13	1.00	1.13	7.51	4.00	1.88
523	5.48	3.00	1.98	-	-	-	-	-	-	-	-	-	5.48	3.00	1.83
524	-	-	-	-	-	-	4.90	1.00	4.90	4.01	2.00	2.00	8.91	3.00	2.97
525	-	-	-	-	-	-	-	-	-	1.72	2.00	0.86	1.72	2.00	0.86
526	10.16	4.00	2.54	-	-	-	-	-	-	0.53	1.00	0.53	10.69	5.00	2.14
528	1.70	1.00	1.70	-	-	-	9.03	2.00	4.51	-	-	-	10.73	3.00	3.58
560	-	-	-	-	-	-	1.48	1.00	1.48	-	-	-	1.48	1.00	1.48
561	-	-	-	7.09	2.28	3.11	27.71	5.32	5.21	12.14	5.76	2.11	46.94	13.36	3.51
563	-	-	-	-	-	-	1.13	1.00	1.13	-	-	-	1.13	1.00	1.13
571	20.22	8.28	2.44	0.40	0.76	0.40	-	-	-	1.73	1.52	1.14	22.35	10.56	2.12
Total	493.15	327.64	1.50	910.69	478.56	1.90	2,064.35	616.80	3.35	576.53	323.32	1.78	4,044.72	1,746.32	2.32

Appendix table 18.--Total catch (Y), standard effective trip (f), and catch per standard effective trip (Y/f) according to statistical areas, by quarters of the year, 1965

Area	First quarter			Second quarter			Third quarter			Fourth quarter			Annual		
	Y	f	Y/f	Y	f	Y/f	Y	f	Y/f	Y	f	Y/f	Y	f	Y/f
	Metric tons	Number	Metric tons	Metric tons	Number	Metric tons	Metric tons	Number	Metric tons	Metric tons	Number	Metric tons	Metric tons	Number	Metric tons
121	1.27	1.00	1.27	14.41	6.64	2.17	-	-	-	-	-	-	15.68	7.64	2.05
122	36.20	21.11	1.71	2.76	7.47	0.37	57.87	26.56	2.18	1.63	1.66	0.98	98.46	56.80	1.73
124	2.81	9.66	0.29	269.04	85.69	3.14	301.38	49.80	6.05	46.49	16.60	2.80	619.72	161.75	3.83
125	-	-	-	-	-	-	302.78	64.00	4.73	43.95	19.00	2.31	346.73	83.00	4.18
128	-	-	-	-	-	-	2.61	0.83	3.14	-	-	-	2.61	0.83	3.14
198	-	-	-	-	-	-	6.62	1.00	6.62	-	-	-	6.62	1.00	6.62
321	1.31	1.00	1.31	-	-	-	-	-	-	-	-	-	1.31	1.00	1.31
322	5.50	7.00	0.79	8.08	4.00	2.02	83.57	21.00	3.98	-	-	-	97.15	32.00	3.04
323	-	-	-	24.53	6.00	4.09	116.84	29.00	4.03	6.12	3.00	2.04	147.49	38.00	3.88
324	-	-	-	-	-	-	12.99	5.00	2.60	-	-	-	12.99	5.00	2.60
326	-	-	-	-	-	-	-	-	-	1.15	2.00	0.57	1.15	2.00	0.57
327	2.27	2.00	1.13	0.12	1.00	0.12	19.99	7.00	2.86	1.48	1.00	1.48	23.86	11.00	2.17
328	78.66	50.28	1.56	81.89	34.49	2.37	34.83	10.98	3.17	102.67	35.64	2.88	298.05	131.39	2.27
331	12.16	10.49	1.16	14.92	6.00	2.49	35.72	14.64	2.44	9.00	5.98	1.51	71.80	37.11	1.93
332	10.32	5.32	1.94	15.16	6.00	2.53	3.93	2.00	1.97	22.44	8.32	2.70	51.85	21.64	2.40
333	2.09	3.00	0.70	-	-	-	29.01	4.00	7.25	15.24	5.83	2.61	46.34	12.83	3.61
345	-	-	-	14.86	2.00	7.43	-	-	-	-	-	-	14.86	2.00	7.43
349	-	-	-	6.09	1.00	6.09	-	-	-	-	-	-	6.09	1.00	6.09
350	2.48	1.00	2.48	80.77	18.15	4.45	9.82	3.49	2.81	26.79	5.00	5.36	119.86	27.64	4.34
351	2.78	2.66	1.04	54.93	11.47	4.79	9.75	5.15	1.89	8.64	2.00	4.32	76.10	21.28	3.58
359	-	-	-	-	-	-	-	-	-	5.43	1.83	2.97	5.43	1.83	2.97
360	3.06	4.49	0.68	-	-	-	6.94	2.00	3.47	11.19	3.00	3.73	21.19	9.49	2.23
361	2.48	1.83	1.35	6.88	3.00	2.29	15.78	3.66	4.31	-	-	-	25.14	8.49	2.96
362	-	-	-	-	-	-	7.45	1.66	4.49	-	-	-	7.45	1.66	4.49
420	24.02	14.96	1.61	88.67	14.83	5.98	24.79	7.49	3.31	16.36	8.49	1.93	153.84	45.77	3.36
421	63.09	33.75	1.87	112.96	21.62	5.22	44.39	14.30	3.10	11.88	3.49	3.40	232.32	73.16	3.18
422	13.22	9.64	1.37	240.58	48.90	4.92	112.95	41.77	2.70	96.32	27.62	3.49	463.07	127.93	3.62
423	28.31	23.79	1.19	293.01	84.52	3.47	369.49	81.31	4.54	25.17	14.13	1.78	715.98	203.75	3.51
424	29.83	17.98	1.66	13.18	5.32	2.48	40.26	8.64	4.66	4.09	1.83	2.23	87.36	33.77	2.59
425	23.69	9.81	2.42	23.17	8.98	2.58	46.26	10.32	4.48	3.76	2.00	1.88	96.88	31.11	3.11
426	45.59	23.64	1.93	30.74	7.66	4.01	13.44	2.66	5.05	5.11	3.32	1.54	94.88	37.28	2.54
427	29.54	25.47	1.16	7.28	2.83	2.57	34.32	10.00	3.43	1.21	1.00	1.21	72.35	39.30	1.84
428	20.94	16.32	1.28	7.94	1.83	4.34	13.47	6.00	2.25	28.40	10.00	2.84	70.75	34.15	2.07
429	5.26	5.98	0.88	6.55	2.49	2.63	5.22	0.83	6.28	6.76	4.49	1.51	23.79	13.79	1.72
441	-	-	-	-	-	-	10.90	0.83	13.13	-	-	-	10.90	0.83	13.13
442	-	-	-	-	-	-	19.31	2.66	7.26	-	-	-	19.31	2.66	7.26
443	-	-	-	120.19	20.30	5.92	1.33	2.00	0.66	3.47	2.00	1.74	124.99	24.30	5.14
444	-	-	-	9.12	2.66	3.43	8.74	2.83	3.09	-	-	-	17.86	5.49	3.25
445	-	-	-	10.12	1.00	10.12	11.37	4.15	2.74	-	-	-	21.49	5.15	4.17
446	-	-	-	-	-	-	7.37	1.66	4.44	-	-	-	7.37	1.66	4.44
449	-	-	-	16.15	3.00	5.38	1.37	0.83	1.65	6.56	1.66	3.95	24.08	5.49	4.39
450	-	-	-	99.11	17.15	5.78	33.52	13.81	2.43	43.91	15.15	2.90	176.54	46.11	3.83
451	31.98	12.15	2.63	334.22	55.62	6.01	54.79	14.15	3.87	9.56	5.00	1.91	430.55	86.92	4.95
452	47.22	23.13	2.04	279.58	47.60	5.87	20.21	11.15	1.81	5.66	2.00	2.83	352.67	83.88	4.20
453	7.38	6.49	1.14	293.98	52.75	5.57	173.50	40.26	4.31	96.04	32.28	2.98	570.90	131.78	4.33
454	7.67	4.00	1.92	100.03	19.13	5.23	83.60	25.47	3.28	24.40	8.32	2.93	215.70	56.92	3.79
455	2.34	1.00	2.34	85.87	26.81	3.20	133.00	33.13	4.01	45.34	12.32	3.68	266.55	73.26	3.64
456	2.84	2.83	1.00	1.44	1.00	1.44	-	-	-	-	-	-	4.28	3.83	1.12
457	40.95	20.81	1.97	42.55	10.83	3.93	175.16	22.66	7.73	0.58	1.00	0.58	259.24	55.30	4.69
458	3.01	2.00	1.51	-	-	-	-	-	-	-	-	-	3.01	2.00	1.51
459	-	-	-	0.33	0.83	0.40	47.09	7.66	6.15	0.49	0.83	0.58	47.91	9.32	5.14
460	3.47	1.00	3.47	22.32	7.00	3.19	78.07	12.83	6.08	-	-	-	103.86	20.83	4.99
461	-	-	-	-	-	-	30.44	5.00	6.09	-	-	-	30.44	5.00	6.09
462	-	-	-	-	-	-	23.59	4.00	5.90	-	-	-	23.59	4.00	5.90
465	-	-	-	-	-	-	21.16	2.00	10.58	-	-	-	21.16	2.00	10.58
520	-	-	-	1.11	1.00	1.11	25.27	3.00	8.42	-	-	-	26.38	4.00	6.60
521	-	-	-	-	-	-	26.21	3.66	7.16	-	-	-	26.21	3.66	7.16
522	-	-	-	4.25	1.00	4.25	3.98	1.83	2.18	1.46	1.00	1.46	9.69	3.83	2.53
523	3.49	2.00	1.75	-	-	-	1.95	1.00	1.95	-	-	-	5.44	3.00	1.81
524	2.04	2.00	1.02	-	-	-	77.12	7.00	11.02	2.19	1.00	2.19	81.35	10.00	8.14

Appendix table 18.--Total catch (Y), standard effective trip (f), and catch per standard effective trip (Y/f) according to statistical areas, by quarters of the year, 1965--Continued

Area	First quarter			Second quarter			Third quarter			Fourth quarter			Annual		
	Y	f	Y/f	Y	f	Y/f	Y	f	Y/f	Y	f	Y/f	Y	f	Y/f
	Metric tons	Number	Metric tons	Metric tons	Number	Metric tons	Metric tons	Number	Metric tons	Metric tons	Number	Metric tons	Metric tons	Number	Metric tons
525	-	-	-	-	-	-	4.28	0.83	5.16	-	-	-	4.28	0.83	5.16
526	-	-	-	-	-	-	34.37	6.00	5.73	-	-	-	34.37	6.00	5.73
528	-	-	-	-	-	-	7.94	1.00	7.94	-	-	-	7.94	1.00	7.94
543	-	-	-	-	-	-	2.49	2.00	1.25	-	-	-	2.49	2.00	1.25
561	-	-	-	-	-	-	6.06	2.49	2.44	12.52	2.49	5.03	18.58	4.98	3.73
562	-	-	-	-	-	-	34.49	5.98	5.77	1.51	0.83	1.82	36.00	6.81	5.29
563	-	-	-	-	-	-	20.49	4.98	4.11	-	-	-	20.49	4.98	4.11
571	5.37	2.66	2.02	16.76	5.81	2.88	63.65	9.66	6.59	-	-	-	85.78	18.13	4.73
572	-	-	-	-	-	-	7.13	1.66	4.30	-	-	-	7.13	1.66	4.30
Total	604.64	382.25	1.58	2,855.65	665.38	4.29	3,012.42	693.26	4.34	754.97	273.11	2.76	7,227.68	2,014.00	3.59

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